

# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1644.—Vol. XXXVII.

LONDON, SATURDAY, FEBRUARY 23, 1867.

{ STAMPED ...SIXPENCE.  
{ UNSTAMPED...FIVEPENCE.

### Mining Exchange, London.

**MINING EXCHANGE, LONDON.**—As the rules of the Mining Exchange prohibit all its members from advertising mining shares at fixed prices, the Committee feel it their duty to notify that they have no means of offering redress to such of the public as may deal with those advertising shares at fixed prices.

A List of the Members can be had on application to the Secretary.

**MR. JAMES CROFTS, STOCK AND SHAREBROKER,**  
No. 1, FINCH LANE, CORNHILL.  
(Established 23 years.)

HOLDERS of mining shares DIFFICULT OF SALE in the OPEN MARKET may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring ADVICE how to act in the DISPOSAL or ABANDONMENT of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.

The late fall in the has specially affected the mines, but it is estimated that the decline is temporary. Copper keeps steady, and no further decline is anticipated. The following select list, which includes shares in active demand on their merits, is strongly recommended, either for investment or speculation. See reports:—

Prince of Wales.	East Carn Brea.	East Grenville.
Marke Valley.	North Dolcoath.	Okel Tor.
Kitty (St. Agnes).	Redmoor.	Great South Tolgus.
North Crofty.	Great Retallack.	South Condurrow.
Drake Walls.	Great South Chiverton.	East Lovell.

Bankers: National Bank of Scotland, Finch-lane.

**WILLIAM LANE (SUCCESSOR TO JAMES LANE),**  
44, THREADNEEDLE STREET, LONDON, E.C. STOCK AND SHAREDEALER (Established Thirty Years), has FOR SALE the following

15 Calbeck Fells, 12s.	35 East Carn Brea, £3 13	10 No. Crofty, £4 16s 6d
50 Chontales, 13s 9d. dis.	50 East Grenville, 37s 6d	60 New Birch Tor, 7s
15 Chiv. Moor, £7 3s. 9d.	25 E. Rosewarne, 16s. 3d.	100 Prince of Wales, 35s.
(call paid.)	10 Frank Mills, 27s. 6d.	25 Pestarena, 31s. 3d.
10 Clifford, £6 1/2.	10 Great Laxey, £16 1/2.	30 Prosper United, £3 13
5 Copper Hill, 12s. 6d.	15 Gt. Wh. Vor, £16 1/2.	20 Redmoor, 3s. 6d.
25 Crebor, 12s. 6d.	50 Gt. No. Laxey, 17s 6d	30 South Darren, 27s.
50 Don Fed. d. Key, 22s 6	25 Gt. No. Down, £3 18 6	25 So. Condurrow, 17s.
50 Drake Walls, 14s. 6d.	50 Frontino (Gold), 5s.	5 St. John del Rey, 5s 6d
2 East Basset, £19.	30 Hallenbeagle, 13s.	30 West Wh. Kitty, 5s 6d
20 East Russell, £23 1/2.	50 Mineral Rights, 9s. 3d	3 W. Chiverton, £26 1/2
5 East Lovell, £9 1/2.	25 N. Treskerby, £2 1/2.	1 Wheal Basset, £65.

SPECIAL BUSINESS in Great Laxey and West Chiverton, either for cash or time on.

Clients and parties in the country wishing to dispose of shares will find this advertisement a ready means of doing so, by forwarding me a list of their holdings. Approved references given to any part of the United Kingdom.

Bankers: London and County Bank.

**MR. LELEAN, ENGLISH AND FOREIGN STOCK AND SHAREDEALER,**  
11, ROYAL EXCHANGE, LONDON, E.C.

Bankers: Roberts, Lubbock, and Co., Lombard-street.

**GUIDE TO INVESTORS.**—MR. LELEAN'S STOCK, SHARE, AND FINANCE REGISTER for February contains the seventh of a series of articles on the whole circle of Investments, and an analysis of the accounts of all the Joint-Stock Banks and Finance Companies; with such information as is necessary to guide intending investors amidst the shoals and quicksands of the multifarious species of investments that now present themselves. Published by Mr. BAKER LELEAN, at his offices, 11, Royal Exchange, London, E.C. 6d. per copy, or 5s. annually, post free.

**JOHN RISLEY, 32, LOMBARD STREET, AND MINING EXCHANGE, LONDON, E.C.,** has SPECIAL BUSINESS in East Grenville, Wheal Buller, and West Caradon shares.

**MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C.**

**MR. THOMAS THOMPSON, MINING OFFICES,**  
12, OLD JEWRY CHAMBERS, LONDON, E.C.  
MR. THOMPSON'S official connection with Great Laxey having ceased, and as he is constantly receiving the most reliable information about the mine, he would strongly advise his friends to consult him before operating.

MR. THOMPSON strongly recommends the immediate purchase of Westminster.

**GREAT LAXEY MINING COMPANY (LIMITED).**—CAUTION. The attention of the directors of this company having been called to an advertisement of Mr. Thomas Thompson in the Journal, evidently published with an intention to injure the company, notice is hereby given, that Mr. THOMAS THOMPSON has been DISMISSED from his SITUATION as LONDON SECRETARY of GREAT LAXEY, and the public are CAUTIONED against accepting any information from him relative to the affairs of the company. GEO. W. DUMPELL, Chairman of Directors.

**GEORGE RICE, STOCK AND SHAREDEALER, 78, OLD BROAD STREET, LONDON, E.C.** (Member of the Mining Exchange), (25 years' experience), TRANSACTS BUSINESS in MINING SHARES, at close prices:—

Latest quotations.	Latest quotations.
Bryn Gwlog..... £17 1/2-£20	East Caradon..... £5 1/2-£6 1/2
Chiverton..... 8-8 1/2	Great Vor..... 16 1/2-16 3/4
Clifford..... 6-6 1/2	Great Retallack..... 2 1/2-3 1/4
Chiverton Moor..... 7 1/4-7 3/4	Marke Valley..... 4-4 1/4
East Basset..... 18-20	North Crofty..... 4 1/2-5
East Chiverton..... 1 1/2-2	North Treskerby..... 2 1/2-2 3/4
East Grenville..... 2-2 1/2	Prince of Wales..... 34s-35s
East Carn Brea..... 3 1/2-3 3/4	Wheal Grenville..... 16s-18s
East Lovell..... 8 1/2-9 1/4	West Chiverton..... 61-63
East Russell..... 3 1/2-3 3/4	

**SPECIAL—BRYN GWLOG LEAD MINE.**—Only 500 shares. Price about £20 per share. No calls. Regular dividends expected this year. Shares are now selling at half the price of many Cornish lead mines making heavy calls.

**SPECIAL BUSINESS in St. John del Rey, Chontales, and Calbeck Fells.**

**GEORGE RICE** can advise investors what shares to sell and what to buy in the present state of the market.

Feb. 22, 1867. Money advanced on mining shares. Bankers: Bank of England.

**MR. JAMES HUME, 74, OLD BROAD STREET, AND MINING EXCHANGE.**

TRANSACTS BUSINESS in ALL DESCRIPTIONS of MINE SHARES, nett, at closest prices.

SPECIAL BUSINESS in East Russell, East Lovell, Great Retallack, Great South Tolgus, Kitty (St. Agnes), Prince of Wales, Redmoor, East Carn Brea, Carn Brea, Cook's Kitchen, North Crofty, Bottle Hill, South Condurrow, Chontales Gold, Pestarena Gold, &c.

Many shares recommended by Mr. HUME have had a very great advance, and there are several which Mr. HUME feels assured will yet rise 200 or 300 per cent.

Mr. T. HUME'S "Circular" forwarded on application.

Bankers: The London Joint Stock Bank.

**WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN, E.C.,** DEALS in ALL KINDS of bona fide STOCKS and SHARES, and BRITISH and FOREIGN MINES, either for cash or the fortnightly settlement at close prices.

Recommends the purchase of Don Pedro North del Rey, Anglo-Brasilian, East Caradon, South Crofty, West Frances, West Tolgus, East Gannislake, Chiverton Moor, Camborne Vean, Emily Henrietta, and Westminster.

Bankers: Alliance Bank.

**MR. GEORGE BUDGE, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C.** (Established 19 years), has FOR SALE at nett prices:—50 Hollybush (£3 paid), £2 1/2 (good to buy); 50 Pendene, 15s.; 120 North Dolcoath, 8s.; 30 Redmoor, 10s.; 50 Great South Tolgus, 18s. 9d.; 100 Frank Mills, 27s. 6d.; 50 Great North Downs; 25 Gannislake, £3 3s. 9d.; 100 Anglo-Brasilian, 13s.; 75 Don Pedro; 5 Cefn Brynno, 22s. 6d.; 50 Goginan, 22s. 6d.; 100 Tolecarne, 3s. 6d.; 5 Minera; 50 New Treleigh, 18s. 3d.; 25 United Mexican, £2 1/2; 150 Dale, 1s. 6d.; 100 Llanfair Slate Quarry, 10s.; 10 East Russell, £3 1/2; 3 Wheal Basset, £65 1/2; 20 Great Retallack, 58s.; 40 Drake Walls, 15s.; 10 East Carn Brea, £2 1/2; 3 West Chiverton, £61 1/2; 40 Wheal Agar, 15s.; 100 Prince of Wales; 90 Bottle Hill, 5s.; 30 Sillaney Metal, 10s.; 50 South Darren, 26s. 6d.; 7 Bryn Gwlog; 100 Pestarena Gold, 30s.; 70 Mineral Rights, 9s.; 150 West Drake Walls; 120 Hallenbeagle, 11s.; 50 Carn Camborne, 23s.; 75 So. Grenville, 8s. 6d.; 30 North Treskerby; 50 West St. Ives, 12s.; 200 Dale, 2s.; 80 Okel Tor.

**PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES,"** of yesterday (Friday), Feb. 22, No. 412, Vol. IX., price 6d. each copy, forwarded on application, contains a leading article on the Share Markets, and information on the following mines:—

North Wheal Crofty.	South Caradon.	Wheal Seton.
Great South Tolgus.	East Grenville.	New Wheal Seton.
Drake Walls.	Wheal "relawny."	North Downs.
Stray Park.	South rances.	Redmoor.
Wheal Buller.	Dolcoath.	Clifford Amalgamated.
Wheal Basset.	East Wheal Lovell.	Great Retallack.
Prosper United.	West Drake Walls.	Providence.
West Seton.	West Caradon.	Wheal Mary Ann.
Great North Downs.	Chiverton.	Wheal Kitty.
Chiverton Moor.	Tincroft.	Brittany Silver-Lead.
Ding Dong.	West Chiverton.	

Also, particulars respecting the Tin and Copper Standard.

PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London, E.C.

**STOCK AND SHAREDEALER.**—MR. PETER WATSON, ENGLISH AND FOREIGN STOCK, SHARE, and MINING OFFICES, 79, OLD BROAD STREET, LONDON, E.C.

Railway, Joint-Stock Banks, Dock, Insurance, Canal, Mining, Steam-ship, &c., and every other description of shares bought and sold at nett prices.

TELEGRAPHIC MESSAGES TO BUY or SELL Railway, Bank, Mine, and other shares and stocks, punctually attended to, at nett prices for cash, or for fortnightly settlements, with advice as to purchases or sales.

Twenty-two years' experience.

(Two in Cornwall and Twenty in London.)

Bankers: The Alliance Bank, and the Union Bank of London.

From the close proximity of his offices to the Stock Exchange, as well as the Mining Exchange, PETER WATSON is enabled to act with promptitude on all orders entrusted to him, which at all times are carried out with punctuality, and to the best advantage of his clients.

**MR. EDWARD COOKE, STOCK AND SHAREDEALER,**  
76, OLD BROAD STREET, LONDON, E.C.

Has SPECIAL BUSINESS in Chontales, Prince of Wales, East Lovell, Frank Mills, South Darren, West Caradon, Prosper United, and North Crofty.

Satisfactory references given in any town in the United Kingdom.

Bankers: Alliance Bank.

**MR. C. A. POWELL, SHAREDEALER, 78, OLD BROAD STREET, LONDON, E.C.** (Member of the Mining Exchange).

Purchases or sales effected at nett prices, for prompt cash or account. Clients treated with in all cases at a fair margin on the market price.

Mr. C. A. POWELL is prepared to BUY or SELL shares in any mines currently dealt in, and devotes special attention to those prominently before the public.

Daily Price List on application.

Bankers: Bank of England.

**MR. WILLIAM SEWARD, STOCK AND SHAREDEALER,**  
19, THROGMORTON STREET, LONDON, E.C.

**MR. WILLIAM WARD, STOCK AND SHAREDEALER,**  
No. 29, THREADNEEDLE STREET, LONDON, E.C.

**MESSRS. WARD AND JACKMAN,**  
STOCK AND SHAREDEALERS,

CUSHION COURT, OLD BROAD STREET, CITY, E.C.

Closing Prices, Friday Evening, February 22.

Buyers. Sellers.

Chiverton..... £8 1/2-£8 3/4	Marke Valley..... £4 1/2-£4 3/4
Chiverton Moor..... 7-7 1/2	North Treskerby..... 2 1/2-2 3/4
Clifford..... 6 1/2-6 3/4	New Seton..... 37 1/2-42 1/2
Cook's Kitchen..... 9 1/2-9 3/4	North Crofty..... 4 1/2-4 3/4
East Caradon..... 5 1/2-6	Prince of Wales..... 34s-36s
East Carn Brea..... 3-3 1/4	Prosper United..... 3 1/2-3 3/4
East Lovell..... 8 1/2-9 1/4	Tincroft..... 11 1/2-12 1/2
Great Retallack..... 3-3 1/2	West Chiverton..... 60-62
Great Vor..... 15 1/2-16 1/2	West Drake Walls..... 6s-6s
Great Laxey..... 15 1/2-16 1/2	East Russell..... 2 1/2-2 3/4
Great No. Down..... 3 1/2-4	East Grenville..... 2-2 1/2
Great South Tolgus..... 13s-15s	Wheal Seton..... 10s-110

Messrs. WARD AND JACKMAN refer their friends to their remarks on p. 17 respecting many of the above mines.

Bankers: London and Westminster, Lothbury.

**BARTLETT AND CHAPMAN, STOCK AND SHAREDEALERS, 2, BUCKLESBURY, LONDON, E.C.**

Business transacted in every description of stocks and shares at lowest market prices, free of commission.

All communications will receive immediate attention, either personally or by letter.

**N.B.—LOVELL CONSOLS:** The 12 fm. level end west having greatly improved, as will be seen from the report of the managers, which appears in another column of this day's Journal, investors who desire an interest at present prices—£2 1/2, £2 3/4—should send their instructions at once. East Lovell's some time ago were selling for £3, since which they have been marketable at £2 1/2. The lodges that pass through the L. Lovell Consols have already produced over £1,000,000. It will be the price of 1867.

**BUYERS of any part of 500 Lovell Consols and 1000 Great South Chiverton at market prices.** Bankers: London and Westminster.

**GREAT SOUTH CHIVERTON MINE.**—BARTLETT AND CHAPMAN recommend the PURCHASE of these SHARES for PERMANENT HOLDING. From recent indications there is not the least doubt but that a good paying lode will be met with in a short time. £100 or £200 invested in this property cannot fail to prove highly remunerative. Samples of the ore from the 20 fm. level can be seen at the office, and should be inspected by all intending purchasers.

Since our recommendation of two weeks ago the shares have advanced 100 per cent.; therefore, no delay should arise in purchasing at present low prices.

Further particulars, with plans of the district, can be obtained on application to BARTLETT AND CHAPMAN, No. 2, Bucklebury, London, E.C.

**MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C.** (Established 12 years), has FOR SALE the FOLLOWING SHARES, at nett prices:—

40 Chontales, £2 1/2.	10 Chiverton, £3 1/2.	10 East Russell, £3 11 3/4
30 Drake Walls, 15s. 9d.	50 W. Drake Walls, 7s 9d	50 Redmoor, 9s. 6d.
15 E. Grenville, £2 3s 9d	10 Chiverton Moor, £7 3/4	10 Clifford, £5 1/2.
25 Gt. No. Down, £4 3s 9	30 North Crofty, £4 1/2.	30 S. Condurrow, 14s. 9d
10 East Caradon, £2 1/2.	1 Wheal Basset, £7s	40 Prince of Wales, 35s 3
15 E. Carn Brea, £3 1/2.	5 North Roskear, £7 3/4	20 E. Rosewarne, 15s. 9d
30 Gt. So. Tolgus, 13s. 9d	10 East Lovell, £9 6s. 3d.	25 Gt. Retallack, £3 1/2.
25 Wh. Grenville, 19s. 9d	2 New Seton, £4 1/2.	20 No. Treskerby, £2 8 9
1 Wheal Seton, £10s.	3 W. Chiverton, £6 1/2.	1 West Seton, £13 1/2.
5 West Caradon, £9 1/2.	3 Wh. Mary Ann, £12 1/2.	40 Hallenbeagle, 8s. 9d.
35 North Basset, 2s. 3d.	30 Crebor, 10s. 3d.	30 Great Laxey, £16 1/2.
50 Rosewarne Con, 3s 6d	40 No. Dolcoath, 2s. 9d.	50 Mineral Rights, 8s 9d
30 Sillaney Metal, 11s 3d	60 Calbeck Fells, 13s 6d	10 Gt. Wh. Vor, 10s.
10 Grambler, £2 1/2.	25 Lovell Consols, £3 1 3/4	20 E. Bottle Hill, 6s. 3d.
	60 Bottle Hill, 7s.	150 New Lovell, 2s

**MR. R. EMERSON, 28, GREAT WINCHESTER STREET, LONDON, E.C.,** has the FOLLOWING SHARES FOR SALE at nett prices:—20 Dyfnagwm, £6; 15 South Callington; 50 Dale, 2s. 6d.; 50 East Bottle Hill, 5s.; 10 Central Snailbeach, 15s.; 10 Leeds and St. Aubyn, £5; 20 Westminster, £2 1/2; 5 Great Laxey, £16 1/2. And is either a BUYER or SELLER of Rose and Chiverton United, West St. Ives, Wheal Alice, Alfred, Budnick Cons., and Ding Dong, on which information will be forwarded on application to me.

My numerous clients desirous to be furnished with more detailed information than can be well supplied in my advertisement, I have resolved on issuing a Circular, containing valuable information, which will be forwarded to them at their request.

Advice given on the sale and purchase of shares. Eighteen years' experience in Cornwall and thirteen in London.

**WEST CHIVERTON** is selling at £61, and pays 13 per cent. per annum. **GREAT LAXEY** is selling at £17, and pays 12 per cent. per annum. **GREAT WHEAL VOR** is selling at £17, and pays 7 per cent. per annum. A Copper Mine, as safe or safer than the above, but seldom jobbed in, directors or the highest standing in London, is selling at £5 per share, and will pay at least 30 per cent. per annum for years. They should be bought at once; particulars solicited personally or by letter.

**EAST BOTTLE HILL** should be snapped up at 4s. and 6s.—**EDWARD BREWIS, 8, Warrford-cott, Bank, London, E.C.**

**M. R. CHARLES THOMAS,**  
MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER,  
3, GREAT ST. HELEN'S, LONDON, E.C.

**NORTH POOL MINE COMPANY.**—Notice is hereby given, that the BUSINESS of this company is now, and for the future will be, CARRIED ON at No. 3, GREAT ST. HELEN'S, LONDON, E.C., where all communications should be addressed. CHARLES THOMAS, Sec.

**MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER, UNION CHAMBERS, UNION COURT, OLD BROAD STREET, LONDON, E.C.**

**NORTH WHEAL CROFTY.**—The investing public will do well to purchase these shares at the present time, for an early advance and permanent interest. In the parishes of Camborne and Illogan the best tin mines are quondam copper mines, that have arrived at a certain depth, such as Dolcoath, Cook's Kitchen, Tincroft, East Pool, &c. North Wheal Crofty is adjacent to these mines, the bottom levels of which have now entered the tin-bearing formation, and are already sufficiently productive of that metal to yield very good profits.

**MESSRS. LANE AND GIBBS, 2, ROYAL EXCHANGE, LONDON, E.C.** (Members of the Mining Exchange), STOCK AND SHAREDEALERS, AND FINANCIAL AGENTS, transact business in all kinds of securities at closest nett prices for cash or account.

Parties of respectability can have transfers registered in their names previous to payment.

Daily price list on application.

Bankers: London and County Bank.

**MESSRS. WILSON, WARD, AND CO., STOCK AND SHAREDEALERS,**  
16, UNION COURT, OLD BROAD STREET, LONDON, E.C.

Can recommend two good mines for investment.

**MESSRS. MCNEILL AND LONG, STOCK, SHARE, AND MINING DEALERS,**  
31, THREADNEEDLE STREET, LONDON, E.C.

**MATTHEW GREENE, STOCK AND SHAREDEALER,**  
ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.

**MR. JOHN LITTLE, STOCK AND SHAREDEALER**  
77, OLD BROAD STREET, LONDON, E.C. (late of Redruth).

Immediate attention to orders by telegraph or letter.

Prompt cash settlements.

**JAMES D. GINN AND CO., STOCK AND SHAREDEALERS,**  
3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

**SAFE INVESTMENTS FOR CAPITAL,**  
Paying 5 to 20 per cent. per annum upon the outlay.

**SHAREHOLDERS, CAPITALISTS, TRUSTEES, AND INVESTORS** seeking valuable and reliable information, and requiring safe, sound, and profitable investments, should at all times consult

**SHARP'S GENERAL INVESTMENT CIRCULAR** (Post free).

It is a safe guide, giving every information to shareholders and capitalists.

GRANVILLE SHARP, STOCK & SHAREDEALER, 32, POULTRY, LONDON.

**MINE SHARES WANTED TO PURCHASE.**—

NANGLE. EAST CHIVERTON.

NORTH JANE. SOUTH GRENVILLE.

WEST DRAKE WALLS. EAST PROVIDENCE.

WHEAL SETON. WEST CHIVERTON.

Sellers must state number, and lowest price for cash, to GRANVILLE SHARP, Stock and Sharedealer, 32, Poultry, London, E.C.

**MESSRS. J. TAYLOR AND CO., MINING AGENTS AND SHAREDEALERS, 17, CROSS STREET, MANCHESTER,** have FOR SALE the FOLLOWING SHARES:—

50 Great East Lovell.	5 Great Laxey.	25 North Downs.
20 North Dolcoath.	40 New Birch Tor and	20 Silver Brook.
40 Great Mona.	Vittifer.	30 Caswell.

J. TAYLOR and Co. recommend the immediate purchase of Great Mona shares, which are a decided bargain, and must soon command a good premium.

**MR. JOHN B. REYNOLDS,**  
OFFICES, 70 and 71, BISHOPSGATE STREET WITHIN, LONDON, E.C.

Business transacted in British and Foreign Stocks, Railway, Bank, Insurance, Financial, or Mining Companies Shares, and all Miscellaneous Securities, at the lowest market quotations.

Exchanges effected and purchases found for shares not generally marketable.

Mr. REYNOLDS is a BUYER of any number of West Wheal Kitty shares.

Sellers please state number and lowest price.

Mr. REYNOLDS refers to his letter, on p. 117.

Telegrams promptly attended to. Established Ten Years.

Bankers: City Bank.

Published this day.

**MR. JOHN B. REYNOLDS'S FINANCIAL CIRCULAR FOR FEBRUARY AND MARCH IS NOW READY.**—This Circular contains important information concerning the present state of markets generally, having particular reference to Railways, Banks, and Financial Companies, with a comparison of investments in certain financial securities therein mentioned, with other first-class and bona fide investments.

Copies forwarded on application to Mr. JOHN B. REYNOLDS, 70 and 71, Bishopsgate-street Within, London, E.C.

**WEST ST. IVES.**—A SPECIAL REPORT of this property by Capt. JAMES POPE, of Wheal Basset, and dated the 6th inst., is now published. A copy of the same will be sent to all applicants on receipt of £1 1s.—Apply to JOHN B. REYNOLDS, 70 and 71, Bishopsgate-street Within, London, E.C.

**ROSEWARNE AND CHIVERTON UNITED.**—A SPECIAL REPORT of this property, by Captain JOHN HANCOCK, of Polberro Mine, dated the 8th inst., is now published. A copy of the same will be sent to all applicants on receipt of £1 1s.—Apply to JOHN B. REYNOLDS, 70 and 71, Bishopsgate-street Within, London, E.C.

**MR. T. ROSEWARNE, 81, OLD BROAD STREET,**

has BUSINESS, at close market prices, as BUYER or SELLER



## Original Correspondence.

## PRIZES FOR COAL-CUTTING MACHINES.

SIR.—You conclude your notice of the very handsome prizes to be awarded by the South Lancashire and Cheshire Coal Owners' Association by observing that "a better opportunity for obtaining an indisputable proof of the practical value of an invention has seldom, if ever, been offered to inventors," and I am sure that all inventors will thoroughly agree with your opinion. By far the greater number of useful inventions are lost through the inability of the inventors to obtain a fair trial for them, for the present practice of private persons (often knowing nothing of the requirements of the business for which a machine is intended, or of the elements necessary to afford a chance of success) providing the funds necessary for experiments causes the most absurd schemes to be tried with even more avidity than others. The reason of this is obvious. An inventor claiming to produce perpetual motion, or to do some other impossible thing, can, of course, show greater prospective advantage than he who simply confines himself to truth, and since in most instances the capitalist is totally unacquainted with the subject, all that is necessary is that the project shall be plausible, and that a great deal shall be promised. The consequence is that most of the inventions tested prove to be failures, and that the difficulty of finding funds to test inventions almost daily increases.

The course taken by the South Lancashire and Cheshire Coal Owners' Association is calculated to inspire inventors with the knowledge that their efforts will be appreciated and rewarded, which they have never before possessed, and I believe it would well repay those connected with other trades to follow the example thus nobly set. In applying to a committee the inventor would have the assurance of impartiality, which he could scarcely hope for if he applied to an individual, for whilst the individual would be guided in his decision by the consideration as to whether the improvement suited the plant he had at present in use, the committee would consider only whether a substantial advantage was derivable, and whether the working of the machine would give a fair return for the outlay. The committee, as such, could give a favourable and reliable decision that a machine was useful without thereby committing any member to adopt it, whilst the inventor would have the advantage, upon the strength of such an evidence of utility, that many who would otherwise decline even to look at it would be induced to employ it.

I have not yet seen the conditions upon which the competition between the coal-cutting machines is to be conducted, but have no doubt whatever that they will be fair and reasonable; at the same time I would observe that, even should there be anything which the inventors object to, they should recollect that it is the first competitive trial of the kind, and that any slight shortcomings could be remedied on a future occasion, provided inventors show the disposition to meet those offering the prizes; whilst if there be too much carping at the details, it is probable that both coal owners and others will be disinclined to the experiment of offering such handsome prizes should be repeated. —Birmingham. AN INVENTOR.

## PRIZES FOR COAL-CUTTING MACHINES.

SIR.—The liberal prizes offered by the South Lancashire and Cheshire Coalowners' Association will, no doubt, cause a large number of inventors to turn their attention to the construction of a machine which shall meet the requirements of the case; it will, therefore, be particularly interesting to these to learn what has already been done by others, in order to avoid their errors and profit by their failures. The machines hitherto introduced may be divided into three classes—the mechanical pick-axe, the circular saw, and the hydraulic chisel, describing them with sufficient accuracy. In all these cases the invention consists either in the particular combination or in the variation, in some very slight, neither of them being absolutely new. Each arrangement has its defects in the state which has hitherto been reached, but in each there are certain recommendations which should prevent them being thrown aside without due consideration. Thus the pick machines are still very far from imitating the pick, either in economy or facility for use. The circular saw is extremely inconvenient in use, and the hydraulic chisel, although making a comparatively small cut into the coal, crushes all within its reach to the finest and most useless powder.

The new efforts to produce a practically useful coal-cutting machine commenced about three years since, when Mr. Rothery, of Leeds, proposed a mechanical pick worked by a hand-machine, and this was soon after improved upon by Mr. Rothery and another by arranging that it should be worked by compressed air, and modifications were subsequently introduced by using a trunk cylinder, and then by employing a system of racks and toothed wheels for permitting the pick to be worked in various positions. The patents for these several machines were taken by Messrs. Rothery, Ridley, and Firth and Donisthorpe, of Leeds, James Russell, jun., of Falkirk, Jones, of London, and others; but so great is the resemblance of the machines to each other that it is probable that had success been achieved by either of them the validity of the patents protecting it would have been successfully contested in our law courts, and it is not unlikely that the whole of them would have been declared worthless. There are many who still maintain that the hand machine is the best, although it was so soon abandoned in favour of compressed air; but no doubt it was absolutely necessary to reduce the size of the machine, and to effect this Mr. J. G. Jones introduced, in conjunction with Mr. Ridley, the trunk-engine for the ordinary high-pressure engine first employed, and soon afterwards he patented the mode of turning the pick. Mr. Jones's latest machine had the trunk-cylinder also, and a very simple and ingenious method of turning the pick to any angle from horizontal to vertical, and to either side, by means of a worm working into a wheel cast or fitted on the rocking shaft bearing, and thereby carrying round the trunk and the whole apparatus in the desired direction. The cylinder also is made to move longitudinally on the carriage, so as to adjust the blow of the pick to any point that may be necessary. The valve is worked by a piston in its back stroke striking against a rod which passes through the back end of cylinder, and actuates a lever connected with the valve-spindle, having an elastic pad of India-rubber introduced in the lever to take off part of the concussion. But Mr. Jones's arrangements did not appear to remove the great difficulties—the necessity for making three courses for a single kirk, and the inconvenience of compressed air as a motor. The first of these difficulties was attacked by Messrs. Firth and Co., who proposed a series of picks, one beyond another, all striking simultaneously, so as to make a groove 3 feet or more deep at one working, whilst Messrs. Carrett and Marshall, of Leeds, attacked the other by introducing his hydraulic coal-cutter, which has several times been described in the *Mining Journal*. Messrs. Carrett, Marshall, and Co.'s is a travelling mortising machine, which it is claimed will do more in one minute than 700 blows from a hand-wrought pick can do; it can, if necessary, be made only 2 feet high, and it has an adjustable head to touch the roof, and weighs 1 ton. It is fed with water, at 300 lbs. pressure, at the rate of 30 gallons per minute. This water pressure acts vertically on a 5-inch piston pressing against the roof, and horizontally on one about the same size, reciprocating 18 inches, and from 15 to 20 times in a minute. There is a pressure of 5000 lbs. against the roof, and the same pressure acting horizontally, forcing three "cheese scoops" into the coal. These cutting tools are 3 inches wide, and penetrate 4 feet, with a power equal to three horses or 18 men, and this is effected by a consumption of 50 lbs. of coal per hour to feed the boiler of the engine, which makes the water pressure, and pumps the same over and over again. The machine "kirk" attended by a man and boy, and completes the work with one going over, at the rate of 15 yards per hour, and at any angle and height from floor or rails, being suitable for either "dip" or "rise" workings, and is capable of cutting the thinnest seams. The pressure of water which actuates this apparatus can be obtained either from the stand pipes in the pit, or from pumps attached to any existing engine, or from an engine and pumps especially made for the purpose. The quantity necessary is only what is sufficient to fill the circuit of the pipes, using it over again when desirable, as in the Bramah press. Any idea of a large volume of water being necessary may, therefore, at once be dispelled. There is no leakage whatever. Although the length of stroke of each cutting tool is 18 in., the practical cutting length is 16 inches, and, consequently, the three cutters

jointly give a total effective depth of 4 feet at each stroke of the machine, finishing the work as it goes along. The mechanism employed consists of an hydraulic reciprocating engine, adjustable to any height and angle, having a self-acting valve motion. The cylinder is 4½ in. diameter, and lined with brass, and the piston made tight with ordinary hydraulic leathers, easily renewable. Within the piston-rod is attached the cutter bar of steel, carrying the tools or cutters. These can be varied in number, to suit the depth to be holed at one operation. The cutting tools are of double sheer steel, easily made, and very strong, and can be removed and replaced in a few moments; they are readily sharpened on an ordinary grindstone. The cutter bar is also removable when transporting the machine from place to place, for which purpose the main cylinder is for the time being placed longitudinal with the rails. If it can be proved that cutting under the coal is practicable, I see nothing to prevent the very general introduction of the machine where thick seams of coal are to be worked, but for thin seams I am inclined to think hand labour cannot be economically superseded. —Newcastle, Feb. 19. W. R. G.

## DOUBLE ROPES FOR COAL PIT CAGES.

SIR.—A plan for preventing the destructive descent of a coal pit cage in case of the rope breaking has occurred to me, so simple that I think it must have been tried, or that there is some objection to it not known to me, and I shall be obliged if any of your readers, competent to do so, will point out such objection to its adoption.

The use of safety-catches is disliked by many mine engineers, it being alleged that they are liable to catch, without the rope breaking, when the cage travels very rapidly, as it must do when much coal has to be drawn by one shaft, and that such liability renders the so-called safety-cage a probable cause of danger when the drawing is very rapid, though it may answer very well when it is not. This objection would not apply to the plan I suggest, which is simply using two ropes, each when new strong enough to carry (say) seven times the expected load, instead of one able to carry (say) fourteen times the load, as is now not uncommon. I suggest that one of the ropes should be used for drawing, and that the other (which I call the safety-rope), attached by its ends to each of the pair of cages used, should pass over one of Fowler's clutch-pulleys, at the pit mouth. This pulley must be provided with a powerful steam-break, to come into operation whenever the speed is excessive, as it must become if the drawing-rope breaks. A pair of governor balls, with the steam-break, would immediately check excessive speed, and compel the cage, though supported by one rope only, to descend at a safe rate.

The effect of either of two ropes breaking would be to throw the weight it bore upon the other, and as the breaking strength of each rope shall, when new, be far more than the total load, if ordinary care be taken to change the ropes as soon as they begin to show wear (as is now done at all well-managed pits), the risk of both the ropes breaking at once will be almost infinitely small. If we suppose the risk to be a thousand to one against one rope breaking, the risk against two ropes, watched with the same care as one, breaking together will not be half as much, but only one thousandth as much, or a million to one against that almost impossible possibility.

As the cost of two ropes, each strong enough to carry (say) seven times the load, would not be greater than of one rope of twice the strength and twice as many wires, the only extra cost for so great an increase of safety would be the clutch-pulley, with its break, &c., which would be trifling compared with the diminution of risk and of anxiety, from which all mine managers would gladly be relieved. —NOT A C.E.

## PREMIUMS FOR INVENTIONS.

SIR.—The Association of Colliery Proprietors of South Lancashire and Cheshire have decided on offering three prizes for the best machines for coal-cutting most suitable for the requirements of the trade, and most satisfactory to the judgment of a committee appointed to decide as to the relative merits of competing machines. While rendering ample justice to the excellence of the motives which prompt the association to this step, I beg, nevertheless, to express my opinion that the tender of rewards for inventions, since such rewards can scarcely be otherwise than dependent on the personal opinions of one, two, or at best, a few individuals, is neither a suitable nor a satisfactory mode of dealing with inventions. Assuredly it is not a mode calculated to elevate the industrial character or promote the industrial progress of the country. And the reasons which induce such a conclusion are these—First, the judgment of a few individuals, however high their reputation or eminent their abilities, is really no fair test of the actual practical value of an invention. The oft-told tale of the reception of Stephenson's railway proposal before a Committee of the House of Commons may be hackneyed, but it never grows stale, for fresh instances arise from time to time which seem to require an iteration of the story. Yes, a committee of what is—ought to be—the representation of the collective wisdom of the country virulently ridiculed the modest suggestion of Stephenson as to the possible speed of steam-engines, a speed which such engines actually attained, and, indeed, surpassed, before the lapse of many years from the epoch of the sapient conclusions of the Committee. The Admiralty board of 1823 peremptorily declined to entertain Ronald's proposal for the adoption of electric telegraphs, assuring him that telegraphs were of very little use, and that they never intended to adopt any telegraph but the semaphore. There is a glaring instance, possibly very familiar to the engineering world, of a great engineer, unhappily now no more, who was a warm advocate of a railway system that has turned out a lamentable fiasco. There are many things, not, indeed, in inventive matters alone, but in other directions also, that seem so fair in promise and so frail in result. Adoption and practical success appear to be the test of merit in invention. The use of the Prussian needle-gun in one campaign, and the public verdict as to its performances, is really a far more solid warranty as to its advantage than would be a judgment arising from half-a-dozen trials at Shoeburyness before three or four "competent" examiners. In fact, time is the world's test of merit. It is a test that men cannot discount by any sort of previous plan or premature pressure. A judge may answer for the merit of an invention, but who is to answer for the merit of the judge? *Vous repondez de lui, mais qui repond de vous.* How far does ultimate public opinion coincide with the individual decision of "judges" in architectural competitions, for instance? Here, where some sort of previous decision, if not competition, is absolutely necessary before proceeding to put intention into practice, it is, I think, not always certain that public feeling ratifies individual judgment.

Many an excellent contrivance, destined to a great future, may even have failed at its outset, by reason of the want or defect of some trifling practical details, for which practice alone would indicate a remedy. Nor is it particularly flattering to inventors to be treated like schoolboys, and to become the recipients of doles of merit of this character, acquired in this manner. The advantage to the three fortunate competitors may be, as a pecuniary benefit, very desirable; but the disadvantages to the unfortunate competitors will be almost disastrous. A condemnation of their machines would inflict a positive injury, though such condemnation might actually leave the intrinsic merits unimpaired; because, though no doubt the decision will be impartial and morally irreproachable, yet if use and public ultimate adoption be, as I believe, and as I desire to show, the fair tests of merit, the disapproval by a committee of inspection will, while leaving the real value of an invention unassailed, injure its prestige and its marketable worth, besides inflicting great discouragement on the inventor. Many circumstances may occur to render one trial or two trials inconclusive, or to impair their value from special temporary or incidental causes beyond the control of the examining committee, and thus to modify results that long use alone can safely attain. There can be no question whatever as to the honour and integrity of such committee as may be chosen; but my objections, which are grave and deliberate, arise from my conviction of the impolicy of a proposal which subjects the schemes of inventors to a species of trial which is inappropriate and inadequate. Premiums of this sort may be, no doubt, agreeable to the recipients; but if they be designed to encourage, as the advertisement announces, a development of the art of coal-cutting by machinery, the method is not a happy one. It is to be hoped, in any case, that the committee will not exercise the sort of premature judgment in vogue at the Royal Academy, for instance, and exclude from the competition such works or machinery as they may consider

unlikely to succeed on trial. If there is to be a public test in the colliery, the trial should be open to all comers; otherwise the whole proceeding would be a farce, and the practical decision would be actually in the committee, and not in the colliery. H. Fleet-street, Feb. 21.

## MECHANICAL VENTILATION.

SIR.—In the letter of your correspondent, "H. E.," which appears in last week's *Journal* on this subject, there are two or three errors, which I may be pardoned in pointing out. He divides the system of mechanical ventilators into two classes—"suction pumps" and "centrifugal pumps;" and amongst the latter includes Lemielle's ventilator—this is the error. Lemielle's ventilator does not depend at all upon centrifugal force for its action, but is purely and simply a "suction pump." Your correspondent further states that the "essential feature in a good ventilating machine is a long, slow stroke, such as Mr. Nixon's especially admits of." With the former part of this sentence I quite agree, but I am not so certain that Mr. Nixon's machine especially admits of this, more particularly if "H. E." means a "long, slow stroke" to be one of 30 feet, which he assumes immediately after in his illustration. A 30-foot stroke, I think, would be most difficult to attain. Lemielle's machine, I contend, does away with any difficulty in this respect, inasmuch as it is one continuous stroke so long as the machine revolves; and, moreover, has this advantage, of dispensing with valves entirely.

With "H. E.'s" remarks as to liability to injury to mechanical ventilators in case of explosion, I also, to a certain extent, agree; but is not the first object aimed at in improved ventilation to do away with explosion altogether? However, admitting the possibility of explosion with the very best ventilator, I do not think "H. E." entirely does away with the objection to Nixon's machine in common with others, because an explosion of force sufficient to "blow away the valves" would, most probably, blow away the entire machine. The only instance in my knowledge of a considerable explosion occurring where machinery (for ventilation) was in use was at the Pelton Fell Colliery, county Durham. In this case the upcast shaft was solely used as an air-way. A fan on Mr. Guibal's system was placed 20 or 30 yards to one side of the shaft, and a brick arch led from the shaft to the fan, the arch being constructed on the surface. At the top of the shaft a doorway (right over the centre of the shaft) was made for descending for repairs, &c. This doorway was carefully fitted with doors; these doors were blown away, but the fan was not injured in the slightest degree.

One other error appears in "H. E.'s" letter, and naturally follows his placing Lemielle's ventilator in the class of centrifugal machines, and that is, "all ventilation must pass through the fan;" the ventilation does not pass "through" Lemielle's machine, it merely passes by the side of what the inventor, I think, terms the "central body;" and, therefore, an explosion might possibly pass it, and only "blow away" one of the "wings." I much fear, however, that any explosion which would injure it at all would, as in the case of all the machines, Nixon's included, render it entirely useless.

One more remark and I am done. "H. E." writes of "250,000 or even 500,000 cubic feet of air per minute" as being of comparatively easy attainment, "the quantity of air varying with the power employed." No doubt quantity does vary according to power to a certain extent; but I fear "H. E." does not take into serious account other matters which to a very large degree affect the question of quantity. I do not know "H. E.'s" attainments in the science of ventilation, but his nonchalant manner of speaking of 500,000 feet per minute makes me fear he has not given the whole subject the most careful consideration. I have not time to pursue this further, but will content myself with propounding the following for "H. E.'s" study, and reply, if he chuses. Suppose a mine with upcast and downcast shafts of 100 fathoms (I mention this shallow depth, because I think it is sufficiently proved that at great depths furnace ventilation is more economical than machine ventilation) to be blessed with 100,000 cubic feet of air per minute by furnace ventilation under the following circumstances—Temperature of upcast, 350°; temperature of downcast, 60°; areas of both shafts, 78 square feet; barometer 30 in.; what power would be exerted in the production of this quantity of air? and what power would be required under the same conditions of airways, &c., to produce by machine ventilation 500,000 cubic feet per minute, the power in nominal horse power? By working this out, he will find that the power required for 500,000 cubic feet under these circumstances (which are not altogether suppositious) is something much beyond, I imagine, what he has ever thought of for such a work. —Feb. 18. J. W.

## COST-BOOK SYSTEM—RELINQUISHMENT OF SHARES.

SIR.—Is it not strange that Mr. Registrar Pepsy should have been troubled with the case reported in the *Mining Journal* of Feb. 9 under this head, it having been settled law for years "that a shareholder before relinquishing must pay or tender to the pursuer his proportion of the debts and liabilities on the mine up to the time of such relinquishment, when a valuation of the machinery and assets (including all ores broken) must be made, as for an abandoned mine, and to his proportion of such ascertained value the relinquisher becomes entitled at the end of a year." This being so, it is evidently the duty of the pursuer to charge up every liability to the day of meeting, as was the case in days gone by, before sharebroking and rigging the market became general, and it is equally the duty of every committee or board of directors to see that this is done. What is the case in very many mines now? The costs are left two or even four months in arrear, whilst credit is taken for every ounce of ore broken. British mines must be better managed, the dues or royalties decreased, and the terms lengthened, or continental mines will outstrip the British. In Bohemia, Hungary, and Austria proper the dues or royalties on coal, iron, lead, copper, and tin are 5 per cent. on the profits realised, and the grants are in perpetuity. In Prussia and most parts of Germany there are no dues or royalties on coal or iron, and only 2½ per cent. on metallic minerals, the grants being also in perpetuity. What a contrast to the heavy premium demanded by the Duchy of Cornwall and a Duke of Bedford for new leases of Phoenix and Great Devon Consols respectively, from the defenceless shareholders whose capital alone had created a property of which they were thus called on to repurchase a renewed lease, although in the former instance the capital sunk had not been repaid. I hope shortly to call the attention of your readers to the losses of the public and the gains of the lords in mines. —S. E. J.

## IS CORNISH MINING A LEGITIMATE SPECULATION?

SIR.—Being one of the oldest miners from Cornwall, and my practical experience being generally known through all the wide circulation of your valuable *Journal*, your inserting the following remarks will oblige:—First, it is well known to the public that through life I have opposed all fraudulent mine reports and prospectuses, from whatever source they may come. It is the great drawback on mining, for which the child will rue that is unborn. It is well known to the general public that false and concocted mine reports are issued, and those who issue them know at the time they are based on falsehood. The sole object of these promoters is to get a large sum of money subscribed, when they make an unnecessary show of building on the surface, repair a few old shafts, and at times erect an engine; when it oozes out that the money collected is all spent, and when the duped shareholders make a move to know what has become of it they then discover that some thousands are charged for valuable work done on the mine. I ask you did this work? I say a former company, who worked the mine and spent their thousands, or I may say tens of thousands, when seeing there was not a chance of it ever repaying them, abandon the mine as worthless. After a few years the mine is again taken up by a few schemers, not for its intrinsic value, but to make a large draw on the public, when they, for these old shafts and levels as found in this abandoned mine, charged and obtained sums varying from 10,000, to 20,000, for, I say, nothing done by them. Their first care is to get a large portion of this money into their hands, to pay half or more in cash, and the remainder they kindly offer to take in free shares; and at the very time they are calling 25 per share from the duped subscribers they are selling their own free shares through their brokers for 10, or for whatever sum they can get. When these unwary subscribers discover how they have been duped they get disgusted with mining, and the concern is wound-up. I need not point out how many mines have been got up of late years through this system of robbery, where they pretend to have spent some 10,000, to 20,000, on the mine, and they never even drew the water out. It may be asked, who are these men? I say men living on their wits, who would do or say what will answer their purpose best. Their first object is to draw in two or three narrow-minded miners, when under the offer of a situation and a bribe of a few pounds, they get up flash reports, and get these men to sign them. This saddles them with what is stated in the reports, and takes the onus from their own back. They seldom let those miners in as co-partners; but, singular as it may appear, these men never prosper, they are wild and extravagant; their money soon slips through their fingers. Scores of them may







tions with such proofs as, I have no doubt, will explain to all candidly disposed the either ignorantly or willfully created mysteries advanced at that meeting.  
Lacey, Feb. 14. R. ROWE.

#### GREAT NORTH LAXEY MINING COMPANY.

SIR,—In reply to the statement which appeared in last week's Journal, to the effect that I was "dismissed from the underground agency of the Great Laxey Mine," I shall be glad if the writer will inform the public when, by whom, and under what circumstances I was dismissed. Two months before I left the mines I had tendered my resignation, and at the time to which the writer probably refers I had written the directors, positively declining to have any further connection with the company, after which I received that which is now pleased to be termed my dismissal. I replied to the directors that I did not receive their communication as a dismissal, but simply as an acknowledgment of my resignation, which had been previously tendered. As to the progress made at the Great North Laxey Mine during the past two years, all I can say is that if the directors and shareholders are satisfied I cannot object. I was asked for my opinion, and I gave it as becomes my profession.  
Shrewsbury, Feb. 20. JOHN KITTO.

#### Meetings of Mining Companies.

##### GENERAL MINING ASSOCIATION.

A special general meeting of shareholders was held at the offices of the company, Old Broad-street, on Tuesday,  
Mr. A. C. BRIDGE in the chair.

Mr. FOORD (the secretary) read the notice convening the meeting.

The circular which had been previously circulated among the shareholders stated that the object of convening the present meeting was to consider, and if deemed expedient, to take measures for increasing the capital of the association to the extent of 50,000l., by the issue of 2500 new shares of 20l. each, to be offered to the proprietors of the existing 25,000 shares, at the price of 18l. per share in the proportion (as near as may be) of one new for every ten old shares. The new shares will, when the price of them shall have been paid, be of equal value with the present shares, and will participate in that part of the dividend in respect of the year ended Dec. 31, 1866, which will fall payable in the month of July, 1867, and will thenceforth bear dividend in common with the existing shares. Inasmuch as the company does not possess any reserve fund as a working capital, the directors have hitherto provided, out of the net profits of the concern, and from no other source, for all expenses considered necessary by the expansion of the operations of the company—by the increased means of meeting the growing demand for the coal, by the sinking of new pits, by the providing of steam-engines, steam vessels, and additional workmen's houses, and by the extension of railways at the collieries. With the view of providing an ample stock of coal to meet the demand at the three principal collieries, on the opening of the trade in the spring of each year, and of keeping the men employed, it has been the practice to raise large stocks of coal during the winter months, and that a considerable amount of funds has thus been each year unavoidably absorbed. These funds have been liberally provided on loan by our bankers in Nova Scotia, and their advances have been from time to time repaid, as the sale of the coal thus raised in advance has proceeded. It is, however, obvious not only that money so obtained unavoidably occasions a heavy charge for interest (never less than 6 per cent. per annum), but that the association is, by such a practice, placed under the inconvenient liability of being called upon, at any moment, to repay those advances, if the bank should suddenly require the money; nor, after the severe monetary pressure both here and in America of the past year, can such a state of circumstances be considered imprudent. The directors have, therefore, felt, and in this feeling they confidently believe that the great body of the shareholders will participate, that the operations of the association should no longer remain subject to the inconvenient contingencies incident to a frequent recurrence to borrowed capital, but that such adequate funds should now be raised as will place the future working upon a more safe and satisfactory footing. This purpose the directors believe will be effected by the creation of not less than 2500 new shares of 20l. each, on the terms now mentioned, and they recommended such creation accordingly. The directors are gratified in being able to assure the shareholders that the prospects of the company, as regards the future, are both sound and encouraging.

The CHAIRMAN said the proprietors had already been informed by circular the object of the present meeting. From the first payment of dividends, 21 years since, there had never been a working capital, and the operations of the company had to be carried on by loan from the bankers, which he need hardly say was a very heavy expense. During the 21 years there had been paid in dividends no less than 558,000l., and during that period the stock on the mine had been increased to the extent of 145,000l. Although it might be said money could always be borrowed from the bankers, yet he thought the shareholders would agree with him that the directors ought not to be so placed as to be liable to be drawn upon at any moment by the bank. As to the works at the collieries, he might mention that there had been just opened new pits at the Albion Colliery, which had incurred an expenditure of nearly 60,000l.; they were also working down on the main seam, and raising from the "dip," which was an expensive operation. A new pit was likewise being sunk, by means of which a very large coal field would be opened out, that shareholders were aware no doubt was a costly operation; two new engines had been ordered, one for pumping and the other for winding, which would cost 45,000l.; and the directors sent out a locomotive and other machinery. Those things were not immediately productive, but would be of considerable advantage for many years to come, and, therefore, it was obvious their cost should not be taken from the current revenue. At the Sydney Mines a new pit was required, indeed, 15,000l. had already been expended upon it, but should not be taken from the current revenue. These were the grounds upon which the directors urged the absolute necessity of raising additional capital, while the only mode in which it could be raised was in the manner proposed. Unless, indeed, the pits were opened the collieries must soon come to an end. He then proposed—

"That it is expedient that the capital of the association be increased to the extent of 50,000l., by the creation and issue of 2500 new shares of 20l. each; such new shares, after full payment of the respective instalments of the price thereof, on the respective dates mentioned in the circular, to have all the rights and privileges, and to be subject to all the duties and liabilities of existing 20l. shares, and to participate in the dividend which shall be declared by the directors to the proprietors at their yearly meeting in June, 1867, and thenceforth in common with the existing shares in the association; that the price to be paid for each new 20l. new share be 18l., whereof a first instalment of 10l. per share shall be paid on March 29, 1867, and a second instalment of 8l. per share on April 29, 1867; that no dividend shall be paid on any new share until the full amount payable in respect of that share shall have been paid, and interest at the rate of 6 per cent. per annum shall be payable, and paid to the association from and after April 29, 1867, on any second instalment remaining unpaid after that day; and the right of any proprietor in any new share on which the second instalment of 8l. per share shall not, with interest (if any), be paid on or before May 29, 1867, shall, together with the amount already paid thereon, be absolutely forfeited to the association; that the new shares be, in conformity with the provisions of the Deed of Settlement, offered on the above conditions until March 22, 1867, to the existing proprietors of shares in the association registered on Feb. 19, 1867; that in so far as the new shares shall not on or before March 22, 1867, be claimed or taken up by such proprietors, and in so far as any of the new shares shall become forfeited to the association, the board of directors be, and they are hereby authorised to sell, or dispose of the same at such prices, and upon such terms and conditions as regards time of payment and otherwise, as to them shall appear most conducive to the interests of the association; and that the board of directors be, and they hereby are, authorised and requested to take all such measures as to them shall seem right, for effectuating the objects of these resolutions."

Mr. LABROOK (a director) seconded the motion.  
The question being put, the resolutions were carried unanimously. A vote of thanks was passed to the Chairman and directors for the successful manner in which they continue to conduct the company's affairs. The meeting then separated.

#### ENGLISH AND AUSTRALIAN COPPER COMPANY (LIMITED).

The annual general meeting of shareholders was held at the London Tavern, on Thursday.—Mr. R. A. ROUTH in the chair.

Mr. C. B. ROGERS (the secretary) read the notice convening the meeting. The directors' report stated that the gross quantity of ore delivered to the works by the South Australian Mining Association from July 1, 1865, to June 30, 1866, has been 6336 tons against 6824 tons during the corresponding period of the previous year; the gross quantity of ore and regulus received from other mines was 3310 tons against 3414 tons; the quantity of ore smelted at the Burra Smelting-works was 3446 tons against 3821 tons; the quantity of ore and regulus smelted at the Port Adelaide Smelting-works was 6557 tons against 6599 tons; the quantity of rough and refined copper made at the Burra Smelting-works was 762 and 110 tons, against 925 and 81 tons; the quantity of copper made at the Adelaide Smelting-works was 2233 tons, against 2277 tons; the total quantity of copper made at both works was 2345 tons, against 2359 tons; the quantity of copper shipped from South Australia during the year ending June 30 last was 1409 tons, against 1326 tons. At the Burra Works three furnaces were kept at work from July to October, 1865, when they were let out until the beginning of May, 1866, to accumulate a stock of coal for the winter season. During the remainder of the year four furnaces and a refinery were constantly at work. At the Port Adelaide Works the average number of furnaces at work during the first half-year was five, and for the second half-year seven. Both the refineries were more or less constantly at work.

**BURRA BURRA MINE.**—The ore raised for the half-year to Sept. 30, 1866, was 2638 tons, although a reduced number of hands were employed, and the ore was taken almost exclusively from the old pitches. The average percentage contained very satisfactory, being as high as 22 per cent. of fine copper. The operations for the further development of the mine were being continued.

**LIMITED LIABILITY.**—This desirable object has been obtained, and the company is now fully registered under this Act.

**TRAMWAY TO PORT WAKEFIELD.**—This is expected to pass through, or near to, a portion of the company's freehold land, the value of which must necessarily be greatly enhanced by this improved means of communication. The road from the Burra to the above port having been, in a great measure, constructed by this company in former years, the board have instructed the manager to make application to the Government for compensation for the heavy outlay incurred. It is to be hoped that, should any considerable portion of the said road be made use of for the construction of the tramway, the local Government will see the justice of the claim, and reimburse the company for some portion of its outlay.

**FINANCIALS.**—The accounts for the year ending June, 1866, show a net profit of 3324l. 10s. 7d., applicable to a dividend. Under the special circumstances of the year, the directors think that the shareholders may fairly declare a dividend of 1s. per share, payable on March 1 next. In this result the directors think there is room for congratulation, when the difficulties which have attended the past year are taken into consideration. Copper, which was quoted at 99l. per ton at the beginning of February last, has fallen, during the year, as low as

82l. per ton, and cannot now be quoted higher than 85l. per ton. The drought in Australia has caused the price of fodder to be raised very considerably during the whole year, adding greatly to the cost of the company's cartage, whilst the monetary crisis in England could not but affect the interests of the company most prejudicially, by depressing the copper market to a lower point than has been known for the last sixteen years, and by embarrasing the ordinary financial operations of business. Nothing but the economy introduced into the working operations of the company in Australia—the full effects of which have been felt, for the first time, in the year under review—could have made head against such a current of adverse circumstances, and it is the knowledge of that fact which encourages the directors to hope for a better future.

The CHAIRMAN said that the business of the meeting was to propose the reception and adoption of the report and accounts, and to declare a dividend of 1s. per share, and to re-elect the retiring directors and auditors. He then directed attention to the salient points in the report, and stated that every detail in connection with the company's operations was entirely satisfactory, and if the price which their copper had realised had been equally satisfactory the directors would have been in a position upon this occasion to declare a more satisfactory dividend than 1s. per share. During last year the board had been anxious to do everything that would to the advantage of the company, and amongst other things attention had been directed to the wharf extension at Adelaide. Along the river side they possessed a frontage of 700 ft., on which a wharf had been made 200 ft. long; and, taking the results realised by the portion completed, the value of the entire frontage when finished, as a wharf, would improve its value by 20,000l. The progress of Adelaide had been very wonderful. The export and import trade of 1865 amounted to more than 6,000,000l. sterling, which was more than double what it was ten years since. Everything was advancing in value, and the wharf property of the company had not been an exception. He estimated that it would require about 10,000l. to complete the 700 ft. wharfage, but that would give them a very large increase of income. The improvement in the value of land was a matter of no small importance to the company, inasmuch as they possessed upwards of 4000 acres. He now came to the question as to the reason why so small an amount stood to the credit of profit and loss. During the period embraced in those accounts three causes had adversely affected their profit. The first was the high price of fodder. As they had kept between 500 and 600 horses and mules, the price of fodder was to them a matter of great moment. They had had to pay 8l. 8s. per ton for hay, but a contract had just been completed to supply it at 30s.; that alone would have a considerable effect upon the profits. The second adverse cause was the murrain, by which they lost 47 horses and 43 mules, which made a difference in their profits of nearly 2000l.; and the third was, they had had to contend against an exceedingly low price of copper, combined with a high price of money. He found that the price of copper in 1866 was 90l. 14s. 10d. per ton; in 1865, 128l.; in 1864, 130l. 15s.; and in 1863, 97l. 15s. 9d. The large increase which had taken place in the production of copper naturally created a very great amount of competition, but the consumption also increased, although not in the same ratio as the production. When, however, the trade of this country recovered its elasticity the price of copper would improve; although they could not, perhaps, expect the price to be as good as it once was, yet there seemed reason to hope that it would reach 100l. per ton, in which case the shareholders of this company would realise a very good and full profit. He had the satisfaction of stating that they had passed through the recent monetary crisis without making a single bad penny (he said). He then read extracts from the manager, which referred more particularly to the satisfactory quality and quantity of the ore at Burra Burra. Although (continued the Chairman) they had entirely depended for many years upon the Burra for their ore, and that it was satisfactory to find that there was sufficient explored to supply them for four or five years to come, yet now they obtained large quantities from other sources. Taking all circumstances into consideration, he considered there was ground for hoping that this company had before it a prosperous future. As the financial year in England, he might mention that the billable were 9,000l., while, on the other hand, they had copper shipped to England 451 tons, which, taken at 80l., represented 36,080l. There were also 487 tons shipped to Calcutta, which were taken at 85l., and after making every deduction, left 3141l.; and after paying all liabilities, and clearing themselves up to the present time, there stood a balance of 20,922l. of good sound surplus net assets over liabilities, besides the reserve fund of 12,000l. In the monetary panic which prevailed in July last, when the Bank rate was 10 per cent., and all confidence shaken, the reserve fund was utilised to the great advantage of the company, and now stands represented by copper warrants of the value of 12,000l., lodged with the company's bankers in the names of the trustees. He (the Chairman) said there could be no doubt that the company was strong in finance; that they possessed most efficient works, both at the Burra and at Port Adelaide, capable of smelting a great deal more ore than was at present being received; and this year they would have cheap fodder. Formerly all their coal came from England, but now they had an inexhaustible supply at Newcastle (Australia), whence last year 600,000 tons were produced. They possessed a most efficient staff in Australia, and the point of economy in the management was not lost sight of. There had been a saving of between 5000l. and 6000l., a saving that was likely to be permanent in its character. Having expressed a hope that if they did not see a high price for copper they would, at least, see a better price, by which a fair and good profit would be realised in years to come, he moved that the report and accounts be received and adopted.

Mr. FREWER seconded the motion, and in doing so stated that the fairest test of the business done was the quantity of copper shipped on the company's account. Last year there were shipped 1409 tons; in 1861, 1326 tons; and in 1862, 1409 tons. After some further discussion, the report and accounts were received and adopted.

The retiring directors and auditors were re-elected. A vote of thanks to the Chairman and directors terminated the proceedings.

#### PENHALE AND LOMAX (CONSOLIDATED) SILVER-LEAD MINING COMPANY.

The first annual general meeting of shareholders was held at the offices, New Broad-street, on Wednesday.—Mr. FOAKES in the chair.

Mr. H. L. PHILLIPS (managing director) read the notice convening the meeting.

The report of the directors (after referring to the financial position of the company, and the arrangements that had been made with the creditors) stated that they regretted the considerable delay which has occurred in working, or getting to the bottom of the mine—a delay which has been caused by several accidents to the pumping apparatus. These accidents have now been remedied, and the working of the mine resumed, and it is estimated that in about three weeks the bottom of the mine will be seen, and operations in the lower levels commenced. At the present time the level is about 100 ft. below the surface, and about 25 tons of silver-lead ore raised tribute, and Capt. Kitto stated that many more pitches can be set as the mine is unwatered. It is a noticeable feature that the ore is found richer for silver with the increasing depth, and when the mine is in effectual work, and the levels extended, there is no doubt good monthly returns will be made, and a profitable mine opened up. The settlement of the current obligations has absorbed all the available resources of the company, and the directors have accordingly anxiously considered the subject of raising some additional capital to pay the balance, as well as to create funds to pay the monthly cost of the mines regularly. The course recommended by the directors is the issue of 2000 preferential shares of 10l. each, and the directors beg to express a hope that every shareholder will exert himself to take his proportion of the said issue of new shares, as they believe that if this be promptly done it will enable them to complete their arrangements for the preservation of the company's property; and at the same time give them the means to conduct operations at the mines, not only uninterruptedly, but, as they have reason to believe, successfully. The directors beg that their co-shareholders will assist them in this matter, and have the conduct of the company's operations; their hearty support in the endeavour which is now being made to place the affairs of the company upon a sound basis. The property is undoubtedly a good one, and the expenditure already made in plant and machinery will not have to be again incurred, and if the new issue of shares be promptly subscribed for, and the calls necessary to conduct operations to a successful termination be met, the directors believe that the shareholders will be yet well rewarded for their perseverance and outlay.

The CHAIRMAN said that, on behalf of his colleagues upon the direction, no less than on his own behalf—all of whom were largely interested in the enterprise—he had to express their great regret that they were not able, upon the present occasion, to submit a more favourable report than that which had been placed in the hands of the shareholders. Allusion had therein been made to the unfortunate fact that the ex-secretary had committed several serious irregularities, not the least of which was the giving of his own acceptances to the creditors, and so keeping from the directors the real indebtedness of the company. Notwithstanding the desire of the board to ascertain the amount of the current liabilities, all letters relating to the company's affairs were suppressed, and everything else was kept from the knowledge of the board, who were altogether taken off their guard by the secretary being a very large shareholder. He then proceeded to explain the present position of the company, and urged the absolute necessity of the shareholders adopting the recommendation of the board to issue 2000 preferential shares of 10l. each. He spoke as a large shareholder when he stated that each one interested in the company would be promoting his interest by accepting a *pro rata* proportion of those shares, and thus follow the example set by the directors. There could not be a divided opinion that they possessed a really valuable property, and when he mentioned that Mr. E. Mitchell, of Truro, had agreed to accept the purchase, those who knew the position and experience of that gentleman would agree with him (the Chairman) that that fact alone spoke most strongly in favour of the intrinsic merits of the company's property. From a personal inspection of the mines, and from information he gained in the neighbourhood, he felt justified in expressing his belief that when the bottom levels were reached, regular returns of silver-lead ore would be made; and when the ground was fairly laid open they would possess a permanently valuable mine. While upon this point, he would read the report of Capt. Kitto (the manager), which was as follows:

Feb. 20.—Since writing you on the 11th instant I have visited the above mines, and am glad to be able to inform you that operations are progressing favourably, particularly as regards the working of the mine; and I have reason to believe that the mine will be worked with success (which at present there is no reason to doubt), we shall reach the bottom of the mine within three weeks of this date. I was underground yesterday, and found everything going on right, 10 fathoms of water having been drained between Sunday and Tuesday morning. It will take a few days to fix a standing-lift in the 74 fathom level, which is the present level of the water, and then the next lift will reach the bottom. The quantity of ore raised has been increased but little since the accident occurred to the pump-lift, referred to in my report of the 11th instant, on account of the water rising and driving the tributaries from their pitches, but they are now got to work again. I would here again remark that the shareholders in this company (unfortunate as we have so far been) have not the slightest reason to despair of success, as I have not the slightest doubt, and in which I can be borne out by all who know the mines, that ere long they will be well repaid for both patience and outlay.—JOHN KITTO.

Having stated that Captain Kitto was present, and would be glad to answer any question that shareholders might please to put, he repeated his hope that each would take up his proportion of the new issue. He then moved that the report of the directors and balance-sheet be received and adopted.

Capt. JOHN KITTO, in reply to questions, stated that, although a considerable

expenditure had been incurred at the mines, yet shareholders must recollect that the machinery erected was of a character to meet every requirement, however extensively the mine might be developed. When he first accepted the management he had no idea that so much time would have been occupied in reaching the bottom of the mine. He then referred to the accident to the pump machinery, which he stated had delayed the working of the mine at least six weeks, but now he was glad to say the pumps were working well. They were getting down to the 74, and he hoped the bottom of the mine would be drained in something like three weeks from the present time. When the bottom levels were laid open he had no doubt several tributaries could be set to work and some 20 tons of silver-lead ore could be returned monthly. With respect to his not having communicated with the directors earlier than he had done, that was, no doubt, an error of judgment on his part; but, as regards the mine, he could only say that he had such confidence in the future that he had worked without any remuneration from the time he accepted the management, and, in addition, had advanced considerable sums of money to the poor miners. He was also prepared to take his fair proportion of the proposed new issue of shares. In reply to questions, Captain Kitto further stated that the general character of the ground was soft, that it could be driven for about 3l. per fathom, while the average of the lode would give about 1/4 ton of silver-lead ore per fathom, which was considerably above the average of East Wheel Rose. The lodes were about 2 to 3 ft. wide, and the ore was as good as that at West Cliverton. The sett was very extensive, and sinking could be continued at the rate of 2 fathoms per month. When last worked it produced 50 tons of lead monthly, and he considered one of the best proofs which could be given of the opinion held of the mine in the county of Cornwall, was that Mr. E. Mitchell had expressed himself willing to take the purchase.

Mr. DAVIS expressed his belief that Capt. Kitto had acted in the interests of the company, although it was to be regretted that the directors have been kept so long in ignorance of the state of affairs at the mine.

After some further discussion, the motion adopting the report and accounts was put and carried unanimously. The directors were re-elected.

Upon the proposition of Mr. PARLEY, seconded by Mr. PHILLIPS, it was unanimously resolved,—“That the share capital of the company shall be, and is hereby, increased by the issue of 2000 new shares of 10l. each, the sum of 10s. to be paid on application and 10s. on allotment. The said 2000 shares to bear a preferential dividend at the rate of 15l. per cent. per annum; and whenever the dividend paid on the original shares of 10l. each shall exceed in any one year 15l. per cent., then, during such year, the said 2000 shares to participate ratably with the original shares in any dividends paid thereon by the company in excess of such 15l. per cent., and such 2000 shares to be offered, *in the first instance*, to the existing shareholders. Any of such shares as may not be accepted by the shareholders to be disposed of by the directors as they may see fit.”

Votes of thanks to the Chairman, directors, and managing director were passed, which terminated the proceedings.

#### SULBY RIVER MINING COMPANY (LIMITED).

The half-yearly general meeting of shareholders was held at the Athol-street Club Rooms, Douglas, Isle of Man, on Tuesday,

Mr. JOHN PERRY in the chair.

The SECRETARY (Mr. George Maley) read the directors' report, which stated that during the last six months the work of developing the mine had been pushed forward with as much speed as circumstances would permit. Owing to a defect in the walls of the wheel-case had been found necessary to pull it down and rebuild it from the foundation, thereby causing a delay of several months. The walls were now completed in a substantial manner, and the engineers engaged in erecting the wheel and machinery. It was confidently expected that the wheel would be finished in about a month, at which time the sinking of the main shaft would be resumed.

The agent's (Capt. J. Woolcock) report detailed the operations above ground, and stated that the workings underground proved that the mine was an ore-bearing one, and that it is "a very worthy of a spirited trial."

The retiring directors were Mr. James Coole and Mr. J. C. T. Harrison, both of whom were re-elected. It was unanimously resolved that on the occasion of the starting of the wheel all the shareholders in the company should be invited to the mine, and that refreshments should be provided on the ground, at the expense of the company. The proceedings terminated with the usual complimentary votes.

#### Royal School of Mines.

##### MR. WARINGTON SMYTH'S LECTURES ON MINING.

LECTURE XXVIII.—When the excavations are of unusual size, and the ground heavy, the circumstances under which it is necessary to adopt what is commonly called "spilling" are exceedingly various. It frequently happens that there will be parts of the workings in which the ventilation is in an unsatisfactory state, and the timber in such places is exposed to the action of dry-rot, when it will give way sometimes very suddenly, and at other times so gradually as to allow new timber to be put in before any accident is likely to occur. But if two or three caps in succession are broken away, it may be necessary to have boards driven over the cap pieces, in which case great care must be taken not to leave spaces over them. If it be shaly ground, liable to fall away and come down suddenly with a weight of many tons upon the timbers, such unfilled spaces would be productive of evil consequences. It is, therefore, indispensable that all the spaces over the timber should be filled in as closely as possible, so that when the pressure comes it may have an equal incidence upon all parts of the timbering. When, however, these breakages do take place they tax the energy and ingenuity of the most skillful miners to get through them, because it almost invariably happens that when one mass is removed it brings down more, and increases the insecurity. In such cases the use of "spilling boards," or "laths," is a necessity. The lecturer then, by means of a series of drawings, diagrams, and models, explained the mode in which "spilling boards" are driven in, and the opening work back inch by inch. When the ground consists of decomposed granite, with much water in it, or of quicksands, it is a most delicate operation, and unusual care is needed. It frequently happens in driving levels that the workmen open into a piece of ground which comes down with a run, and if there be a considerable quantity of water in it too much caution is impossible, as the sets of timber must be very close, and fresh sets must be put in, until the difficulty is conquered. This often happened when they had to pass through the bed of an ancient river or ravine, and some remarkable deposits of this kind occur in the Durham coal field, which have been well described in the Transactions of the Northern Institute of Mining Engineers. They also occur frequently in Belgium and in the North of France, where those soft materials go down to a considerable depth, and have to be crossed by some of the workings. They also occur in connection with the veins of Cornwall, although the other part of the mine ground consists of strong granite. In that part known as the china-clay district, the workmen have great difficulty in keeping the levels horizontal and regular, although when close timbered it is difficult to detect the reason of the deflection, and if "the level is lost," as the miners phrase it, it is hard to recover it. Indeed, it is often better and cheaper to try a fresh start, and to give up the old level. When the ground is very wet the practice is to make use of laths 5 or 6 ft. in length, pointed or shaped in a sort of trapezoidal manner; and a sufficient number being cut to suit the place, they are driven with large mallets into the ground, which is thus forced back, as it were, and a passage is sought to be made without having to remove too much of the material. This kind of work against very wet ground is so difficult, if persons are not thoroughly used to it, that in metalliferous mines it is rarely adopted, except in the case of quicksands. The upper laths should be driven, not straight, but upwards, with a deviation from 16° to 20° from the horizontal direction. The side laths should be driven at a somewhat less deviation, and the outside pressure will soon bring them parallel with the axis of the level. One or two very remarkable cases of this kind have occurred in the coal fields of Northern France and Belgium. Where attempts have been made to drive levels through quicksands they have entirely failed, in consequence of the material being of such large extent, and so saturated with water. In the commune of St. Vaast, a level for a colliery in a piece of ground of this nature was commenced in 1747, and in 1843 it had only advanced 1150 metres. Of course, he did not mean to say that it had been worked at the whole of that time, but every now and then the attempts had been renewed, until, in 1844, an eminent engineer, M. Durlieux, devised a plan which proved wholly successful. The great secret was that he pushed forward through the sand, instead of attempting to remove it, and thus prevented those ruinous runs which had hitherto attended the preceding attempts to treat the ground. It was effected by driving the face and sole full of oak pickets, boxing in the sides of the level with driving laths. In this particular instance as much advance was made in a few months as it had taken many years to effect previously. There was one modification of "spilling" likely to come into use in future, and to be productive of great advantage, and that was the employment of frames of wrought-iron, and spilling boards of iron also. In making railway tunnels difficulties of this sort are got over by dealing with only a small portion of ground at one time. One of the most remarkable cases of this kind in the world is that of the Thames Tunnel. Many years before that work was undertaken Mr. Trevithick, a well-known mining captain in Cornwall, undertook to carry a tunnel beneath the Thames, and began by driving a small level, as in a mine, by "spilling" to test the character of the ground. It is said he succeeded in getting through about 100 ft., and took the directors there to see the work. One recalcitrant director refused to believe his statements; and Mr. Trevithick, who, though a highly gifted was an erratic genius, in a fit of rage thrust a bar up into the top of the level, and being then under the bed of the river the result of the experiment was that the party had great difficulty in making their escape. The work was afterwards taken in hand by the elder Brunel. He met with almost insurmountable difficulties, and in spite of all his precautions the work was repeatedly swamped. His greatest difficulties arose out of his attempt to carry the tunnel at its whole height and width at once, the dimensions being no less than 38 ft. wide by 22 ft. high, so as to have two roadways. This would have been comparatively easy in many kinds of rock, but he had to deal with soft sand, gravel, marl, and clay. He succeeded, however, by constantly breasting up the front of the excavation by a strong shield of iron, divided into three stages, and also by vertical ribs, by which each stage was subdivided into eleven small cells. The men worked at each of these cells separately and simultaneously, and having advanced them 4 or 6 in. at a time, closing up their ground bit by bit, and the walls and roof secured by masonry, the shield was then pushed on by means of screws, and the whole structure was advanced in this way inch by inch. The system of opening only a small space at once is the best that could be devised, for in all tunnelling it is found that there are dangers which can only be safely encountered by that method. It falls to the lot of miners frequently to have to open out larger spaces than usual, and the great secret of safety and success in heavy ground is to open out only a small portion at one time, and to drive a small drift ahead through the ground, timbering it for safety; another drift is then driven at the top, with great caution if the ground is moveable, and then other portions opened and at length united. Some very interesting works of this nature are now going on in the neighbourhood of London, which the students should take the opportunity to see. A tunnel is now being put through Camden Hill, near Kensington, where first a large drift is being carried through the loose gravel, and where very heavy timbering is necessary. The nature of the ground renders it impossible to open a large piece at once, and the



**HOLLOWAY'S PILLS AND OINTMENT—BILIOUSNESS, DYSPEPSIA.**—There is no organ in the human body so liable to derangement as the liver. Food, fatigue, cold, and anxiety all disorder its action, and render its secretion the bile more or less abundant, superabundant, or scanty. The first symptoms should receive attention. A pain in the side, or the shoulder, or harsh cough, and difficulty of breathing are signs of liver disease, which are moved without delay by friction with Holloway's inestimable ointment. The bile should also be taken early. For all diseases of this vital organ the action of these conjoined remedies is a specific, by checking the over supply of bile, relating its secretion, and giving nervous tone.

**PENDEN CONSOLS.** Just now in a most interesting position to the shareholders, being on the eve of ascertaining the value of one of the most important points in the mine—the Great Pendeen lode in the 82 north. Under date the 14th inst., the managers report that they have driven 5 fms. on the lode, and, having reached the junction with the Pendeen lode, were on the eve of breaking through the lodes to ascertain their value. Should their anticipations of success be realised, a considerable advance in the value of the shares may be looked for. Why FRANK MILLS should be in such disfavour it is difficult to say. Not only are the shares were quoted at 6½ to 6¼, whereas they may now be bought at 4½ to 4, but it is not probable that any dividends have been for about 10 years. But, on the other hand, there is no cause for any alarm, for the work from the mine is not of a very disheartening character. Possibly the public are not in possession of sufficient information respecting the property, but, in any case, the extraordinary depreciation in the value of the shares within so short a period is provocative of remark. GAWTON continues to open up well. The value of this property is sensibly enhanced by the discoveries which are being made in Okelley, the adjoining property. Both the DON PEDRO and ANGLO-BRAZILIAN ex-

**DRAKE WALLS AND WEST DRAKE WALLS.**—The whole of the 800 shares in the latter mine have been applied for, and the 250, 000 per share of the Drake Walls will be forthwith increased out in West Drake walls, which, according to indications, bid fair to become at no distant date of equal value to that which they have already proved in the Prince of Wales Mine, the severance of West Drake Walls from Drake Walls does not in any way depreciate the value of the latter mine, inasmuch as they have a long run of ground both on the tin and copper lodes; as the western portion (West Drake Walls) is



## Mining Correspondence.

## BRITISH MINES.

**BEDOL-AUR.**—H. R. Harvey, Feb. 21: The shaft is down 4 fms. 1 ft. below the 77 yard level; the ground is very stiff, sinking for 191. per fathom by eight men. The 70 cross-cut, north-west from the Brynia, is driven about 6 feet from the latter vein. I think we are nearing the Colita Waen vein, as we are getting some stones of ore, and there is water issuing from the crevices in the sides. Jones's pitch is still looking kindly, yielding nearly 1 ton of lead per fathom; ground rather stiff. Williams's pitch is not looking so well as it has been; the ground here is also hard.

**BOSWORTH PENANCE CONSOLS.**—R. Pryor, F. Hosking, February 21: Jones's shaft is holed to the shallow adit level, and we have also holed the rise in back of the shallow adit level on Carn Brea lode to the old men's workings; all these men, with the endmen driving west of Harvey's shaft, are now engaged in fixing the flat-rods on Jones's shaft, and no time will be lost in completing the same in order to drain the water from the deep adit level; as soon as these rods are fixed we shall at once work our engine and stamps. The engine is now put in good repair. The carpenters and masons are busily engaged about the stamps floors, so as to get them in course against the engine is set to work. The weather is more favourable, and the surface work is going on satisfactorily. We are getting on well with clearing and timbering the tail of the deep adit, and also repairing the engine-shaft. The tubwork bargains remain much the same as when last reported on.

**BOTTLE HILL.**—J. Eddy, Feb. 21: South Copper Lode: The lode in the 91, west of shaft, is still small, carrying a little tin and occasionally we find in it good stones of copper ore; the ground has become much easier, now driving at 41. per fm. The lode in bottom of the 12 is now about 15 in. wide, and producing good work for tin. Main Lode: The lode in the stope east of Bucking-house shaft is still about 7 ft. wide, and turning out work of moderate quality. The tribute ground in back of the 12 continues to look well.

**BRYN GWIOG.**—F. Harper, Feb. 20: The lode in the 102, east of engine-shaft, is still about 4 ft. wide, with a more favourable appearance for lead ore. The lode in bottom of the said level is still large, and at present worth 4 tons of lead ore per fathom. No change to remark in the 90 east since my last; the same may be applied to the 90 west. Both end and rise are worth 2 tons per fathom. Two pitches in the bottom of this level east are looking a shade better. The lode in the 75, east of said shaft, on the new lode, is much as last reported on—2½ tons per fm. The 75 west, on the old lode, has improved in value, now producing fine lumps of lead ore, and opening tribute ground; in the bottom of this level we have cleared up an old winze, and commenced sinking by six men; the lode is rather small at present, although not altogether void of lead; it is my strong opinion that the principal part of the lode is to the north, and having ordered the men to open out in that direction; and as we have a good lode in back of the 90, directly under this winze, we shall in all probability soon cut the same run of ore. The pitches both in back and bottom of this level are much the same as when last reported on. Bramwell's shaft is a little more favourable for progress. We sold on Thursday last 45 tons of lead ore, at 131. 11s. per ton.

**S. Harper, Feb. 21:** In opening into the north side at the old winze, in bottom of the 75 west, fully confirms my opinion as stated in my report of yesterday. I have been down again to-day, and am glad to inform you that the men to open out in that direction; and as we have a good lode in back of the 90, directly under this winze, we shall in all probability soon cut the same run of ore. The pitches both in back and bottom of this level are much the same as when last reported on. Bramwell's shaft is a little more favourable for progress. We sold on Thursday last 45 tons of lead ore, at 131. 11s. per ton.

**BRYN GWYN.**—H. Nottingham, Feb. 19: The character of the ground in the joint we are driving on south from the middle of incline is without change, excepting that there are more boulders of limestone in the joint. The lower level, driving south from incline, is still in easy ground for progress, but of an unusual character for lead. By sinking in the level going south from sump, in the top of incline, the ground proves that the lode is deep enough for the lead. The ground in that place, so we have suspended the sinking to try a little in the sides of the level, where there appears to be some joints off to the west. There is no change in the workings in Clark's level. The tributary sump in Field's level is rather poor for lead; I am afraid this falling off will effect our next sampling a little.

**CAPE CORNWALL.**—Richard Pryor, R. P. Goldworthy, Feb. 20: The lode in the 9 east is large, producing good stones of tin, and is letting out a great quantity of water for this district. The character of the lode is sufficient to induce the opinion that something substantially good will be realised at the junction and in the granite. The lode in the 70 end west is producing a little yellow copper ore—very promising.

**CAMBORNE YEAN.**—N. Clymo, Feb. 21: The 135, east of Grylls' shaft, is worth 2 tons of copper ore per fathom. The stope in the back and bottom of this level are each worth 4 tons of ore per fm. We have commenced to drive east from the winze about 10 fms. below the 135; this end is worth 1 ton of ore per fathom, and of a very promising character.

**CARADON AND RHENK.**—J. Wm. Richards, Feb. 20: There is no change worth reporting in the character of the ground in the cross-cut south at the 50 since my last; it is moderately easy for progress, and mineralised with small branches of fluor-spar, mundle, and yellow copper ore. We have put four men to enlarge the pit at the 50, and intend to resume the sinking below the 50 on the course of No. 1 lode by nine men next week.

**CARDIGAN CONSOLS.**—H. Boundy, Feb. 16: Esgralfraith: The lode in the adit, driving east, is producing a little yellow and black copper ore, and has a very promising appearance. The new engine-shaft is now down deep enough for another level; we have commenced driving the west end of the shaft, put down solar, &c. Yesterday we commenced driving both east and west. The lode in the east end, I am pleased to say, is yielding large lumps of yellow copper ore of very rich quality. The prospects of the mine are of a very favourable and encouraging appearance. Our machinery, &c., is all in good working order.

**CARDIGANSHIRE LEAD.**—E. Pearce, J. Pearce, Feb. 20: Grian Rheidol Mine: The shaftmen are engaged in fixing lift from the 30 to the 40, which will be finished to-morrow; this would have been completed and the water in fork at the end of last week, had it not been for the delay in getting the pump from the foundry; we expect the water will be out on Friday morning next, when the cutting of lodge, &c., will be resumed. The lode in the 30, west of the engine-shaft, is not looking quite so well as it has been, being disordered by a cross-joint. We have cleared out the 30, east of shaft, and find the lode of a promising character, producing a little lead ore and blende; we intend driving this level next week; we shall also commence sinking a winze in the bunch of ore below the 30, west of shaft. The cross-cut north of the adit level is suspended for the present. South Lode: In the 20, west of cross-cut, the lode will produce from 2 to 4 tons of lead ore per fathom; the lode in the 180; it is of an unusual promising nature, and very large, and will, no doubt, turn out a considerable quantity of tin for the market, only sufficient time should be allowed to open out fairly upon it, so as to enable us to take away the tin to the best advantage as to expense, and in larger quantities. The lode in the winze below the 117 is worth 401. per fathom for tin; it is, however, extremely hard, and little progress is making in sinking. The lode in the stope to the west of the above winze is fully 9 feet wide, and worth 281. per fathom for that width. The lode in the stope in the bottom of the 90 is now worth 181. per fathom.

**CLARA UNITED.**—J. Davis, Feb. 20: The cross-cut in the 40 holed straight into the winze on Friday last, and the men are now driving westward on the course of the lode: value for lead ore, 20 cwt. per fm.

**CROWAN AND WENDRON.**—R. Reynolds, Feb. 20: The men are still employed at the new shaft taking out the ground required for the bob-pit; they will finish in two or three days more. We are putting the wheel together as fast as possible, and also preparing the necessary rods, &c.

**CUDRA.**—A. Cundy, Feb. 20: The ground in Walker's shaft is rather more favourable for sinking. In the cross-cut in the 130, west of Walker's shaft, the lode is not yet cut through, and we have made but little progress during the last week, the ground being so hard. The lode continues, so far as seen, of the same character and value for tin as last reported. East of the said cross-cut we are cutting out the lode, which, so far as penetrated on the south part, is worth 301. per fathom. In the whole, we are much pleased with the lode in the 130; it is of an unusually promising nature, and very large, and will, no doubt, turn out a considerable quantity of tin for the market, only sufficient time should be allowed to open out fairly upon it, so as to enable us to take away the tin to the best advantage as to expense, and in larger quantities. The lode in the winze below the 117 is worth 401. per fathom for tin; it is, however, extremely hard, and little progress is making in sinking. The lode in the stope to the west of the above winze is fully 9 feet wide, and worth 281. per fathom for that width. The lode in the stope in the bottom of the 90 is now worth 181. per fathom.

**DEYON AUR.**—J. Wm. Richards, Feb. 20: The lode in the 20, east of engine-shaft, is still about 4 ft. wide, with a more favourable appearance for lead ore. The lode in bottom of the said level is still large, and at present worth 4 tons of lead ore per fathom. No change to remark in the 90 east since my last; the same may be applied to the 90 west. Both end and rise are worth 2 tons per fathom. Two pitches in the bottom of this level east are looking a shade better. The lode in the 75, east of said shaft, on the new lode, is much as last reported on—2½ tons per fm. The 75 west, on the old lode, has improved in value, now producing fine lumps of lead ore, and opening tribute ground; in the bottom of this level we have cleared up an old winze, and commenced sinking by six men; the lode is rather small at present, although not altogether void of lead; it is my strong opinion that the principal part of the lode is to the north, and having ordered the men to open out in that direction; and as we have a good lode in back of the 90, directly under this winze, we shall in all probability soon cut the same run of ore. The pitches both in back and bottom of this level are much the same as when last reported on. Bramwell's shaft is a little more favourable for progress. We sold on Thursday last 45 tons of lead ore, at 131. 11s. per ton.

**EAGLEBROOK.**—H. Tyack, Feb. 16: The 30 has been advanced since my last report about 1 fm. 2 ft.; now extended east of cross-cut from the engine-shaft 19 fms.; during the past week the lode has improved, and more compact, being now about 6 ft. wide, containing clay-slate, carbonate of lime, and gossan, with a mixture of lead ore, about 6 in. wide. The vein is letting out large quantities of water. Since my report of last week, the lode has improved, and more compact, being now about 6 ft. wide, containing clay-slate, carbonate of lime, and gossan, with a mixture of lead ore, about 6 in. wide. The vein is letting out large quantities of water. Since my report of last week, the lode has improved, and more compact, being now about 6 ft. wide, containing clay-slate, carbonate of lime, and gossan, with a mixture of lead ore, about 6 in. wide. The vein is letting out large quantities of water.

**EAST GUNSLAKE AND SOUTH BEDFORD CONSOLS.**—Wm. G. Gard, J. Phillips, Feb. 21: We have not yet reached the cross-course in the 54, west of Gard's shaft. The rise in the back of the shallow adit is still worth 1 ton of ore per fathom.

**EAST ROSEWARNE.**—John James, Feb. 21: There is no change to notice in King's shaft since last reported. In the 95, east of shaft, the lode is 1 ft. wide, worth 61. per fm., and promising for further improvement. In the 95, west of shaft, the lode is 14 in. wide, worth 81. per fm. In the 85 west the lode is unproductive. In the 85, east of Hallett's shaft, there are indications of improvement. The stope in back of the 85, east of King's shaft, on the lode, is worth 101. per fathom. The stope in back of the 85, west of King's shaft, is worth 71. per fm. The stope in back of the 85, west of King's shaft, is worth 61. per fm. In the 43, driving east of King's shaft, on the engine lode, the lode is 2 feet wide, of a promising character.

**EAST SNAEFELL.**—Wm. H. Rowe, Feb. 19: I find a great improvement to-day in the lode at Glencherry shaft; the gossan and lead which came in from the south about a week ago now extend almost to the north end; the lode has also widened to nearly 4 ft., and the ground is easier for sinking. The lead is as yet in detached lumps and irregular joints, but the whole lode is being put aside for dressing. It is, indeed, a handsome looking head vein in every respect, and should it go on to improve in depth, as it has promised from the first, and is now more than ever likely to do, the company are unquestionably in possession of a very valuable property.

**EAST ST. JUST UNITED.**—R. Pryor, R. Wearne, W. White, Feb. 20: The lode in Phillips' engine-shaft, sinking below the 20, is producing a little tin, but not sufficient to value. The lode in the 20, south of shaft, is 3 ft. wide, and worth 31. per fm.; ground easy for driving. Western Mine: The lode in the engine-shaft, sinking below the 70, is improved, and now worth 141. per fm., with a good appearance. The lode in the 76, west of shaft, is worth 11. per fm. for the part that we are driving, and there is still more lode standing to the mouth of the level. Buck Lode: The lode in the 62, east of cross-cut, is worth 51. per fm. Owl Lode: The lode in the 20, south of Savall's lode, is worth 51. per fm., and the ground getting more settled. The lode in the 20, north of shaft, is still worth 91. per fm.; and the lode in the 10 north is worth 81. per fm. The lode in the adit level, north of shaft, is worth 91. per fm., and there is still another part of the lode standing to the south of the level, which will be taken down in course

of a short time. The lode in the winze sinking below this level is worth 101. per fathom. All other places are without change to notice since our last.

**EAST WHEAL LOVELL.**—R. Quantrell, Feb. 13: North Lode: The stope in the 201, which we are now cutting, is worth 301. per fm. by two men and two boys, at 51. per fathom. The eastern stope is worth 301. per fm.; stopping by six men, at 81. per fathom. South Lode: In the western end of shaft, below the 40, the lode is worth 301. per fm.; driving by six men, at 101. per fathom; east it is worth 201. per fathom; stopping by six men, at 71. 10s. per fathom. The western stope at the 40 is worth 401. per fm.; stopping by six men, at 61. per fathom. The stope 5 fathoms above the 40 is worth 301. per fm.; stopping by six men, at 91. per fathom. In the end driving east from this stope the lode is worth 21. per fm.; driving by six men, at 61. per fathom. I think from the dip of the tin west of shaft, below the 40, that we shall have some fathoms further to drive west of cross-cut at the 40 before we intersect the run of tin ground. On the whole, the mine is looking well.

**R. Quantrell, Feb. 20:** The mine throughout is much the same as last week. **EAST WHEAL RUSSELL.**—J. Richards, Feb. 20: In Homersham's shaft, sinking below the 140, the ground is moderately favourable, and fair progress is being made. Homersham's Shaft: In the 140 fm. level cross-cut, north of the main lode, a favourable nature, which looks well for the north lode, as hitherto in connection with the vein in the upper levels the greatest deposits of ore have been found. In the 140 east, and east of Roberts's cross-cut, the north or ore-bearing part of the lode has not been taken down since the date of my last report, the very soft nature of the ground and the great flow of water coming away from the slide rendering it very difficult to explore; fair progress is now, however, again being made, and we hope by the end of the present week, or the beginning of next, to be able to take down the main part of the lode, and I have every reason to believe it will prove to be as good as last value.

**FRANK MILLS.**—J. P. Nicholls, J. Cornish, F. Cornish, Feb. 20: The 145 pit is completed, and the men are now engaged driving the cross-cut west to intersect the lodes; the ground is easy, and good progress is being made. The west lode, in the 130 north, is 1½ ft. wide, and yielding from 4 to 5 cwt. of rich lead ore per fathom. In the cross-cut, north of the 130 north, on the east lode, we have gone through another part of the lode, which is 2 ft. wide, and will yield 4 cwt. of lead ore per fathom. In the cross-cut east from the 115 north, on the west lode, we are still passing through branches or parts of the lode, consisting of white iron, quartz, and a little lead ore disseminated, but not to value. There has been no lode taken down in the 100 north since my last report. The stope and all other operations throughout the mine are without any change.

**FURSDON.**—J. Collins, Feb. 20: The 31 east at present is poor, and the ground harder than it was last week. The rise being holed to the 21 fm. level, and on the south part of the lode, we are now cutting through the lode to the north, a few feet below the level, to prove the north branch of the lode, seen in the level, where there is a good branch of ore. The stuff is not all cleared from the 31 fm. level, under the rise, therefore we have not yet commenced driving west on the lode at this level. The ground in the winze, in bottom of the 11 east, is unsettled, being interrupted by the cross-course; west of winze, in the 11 fm. level, dipping east, it is come in the winze; west of it, we have a small branch of ore, both north and south; the ground is easy for progress. The ground in the end, at the 11 east, is chiefly greenstone, with mundle and spots of copper ore; it is still a kindly end. In the stope in back of the 11 east, in the high back, the lode is not so good; but in the end of ground, going east 2 fms. above the level, the lode is worth about 181. per fm.

**GAWTON COPPER.**—G. Rowe, G. Rowe, Jun., Feb. 16: The new engine-shaft is going down in beautiful mineralised strata, and good progress is being made. The leader part of the lode, in the 60 fm. level west from cross-cut, is 3 ft. wide, worth from 4 to 5 tons of ore per fathom. The lode at the same level, east from cross-cut, is worth 10 tons of ore per fathom. The lode in the 50, west of Moore's winze, is 6 ft. wide, worth 10 tons of ore per fathom. The 50 east is still being continued on the flooken part of the lode, in which there is no change since last reported on.

**GOGINAN.**—Feb. 20: The lode in the 100, east of rise, is 6 ft. wide, yielding at present 1 ton of lead ore per fm.; we have six men employed in this level; from present appearances we are likely to open out some good ore ground eastward. The three stope over the 100, west of rise, are in a large lode, yielding an average 4 cwt. of lead ore per fm. The lode in the drift going west of rise is 6 ft. wide, containing strings of lead ore. The winze sinking below this level is in a large lode, and the part we are sinking in is yielding 11 cwt. of lead ore per fathom; this winze will be communicated to the stope over the 100 in about a week, after which we shall commence stopping over the drift. The three pitches in the old part of the mine are yielding on an average 12 cwt. of lead ore to the fathom.

**GREAT CARADON.**—F. C. Harper, Feb. 16: Our operations since the last meeting have been in the sinking of the 73 cross-cut south of the main lode, rather hard and troublesome for exploring, letting down a quantity of water, which has slightly retarded our progress; however, our best endeavours are being put forth to push the level onward towards the lode which we passed through in the 60 over, the point where we broke some splendid stones of ore, as fast as possible. The ground in the 72 cross-cut is now a shade softer than it has been, traversed by veins of quartz, intermixed with mundle and spots of copper ore. The engine and tubwork are all in good working order. I can only again say that our future operations shall be pushed on as fast as we possibly can, with due regard to economy.

**GREAT MONA.**—John Trewin, Feb. 18: The lode in the deep adit level, which consists of a very kindly quartz, continues to produce good stones of lead and copper ore, and is altogether of a very promising character, and there are indications of a further improvement.

**GREAT NORTH DOWNS.**—Wm. Rich, C. Bawden, Feb. 20: We are urging on the different places of operation as fast as possible, but there is no alteration in the mine worth of notice since our report for the general meeting, which was held last week.

**GREAT NORTH LAXEY.**—R. Rowe, Feb. 19: The engine-shaft is now 17 ft. below the 82; the lode in the bottom is about 2 ft. wide, and within the last few days looking altogether better; we have more lead in the lode, and have tapped a fresh feed of water, which we consider to be a good sign. In the 82 north the lode is about 3 ft. wide, and continues to be worth fully 1½ ton of lead per fm. The lode in the 72 north is at present hard and poor. The stope in the roof of this level are worth about 15 cwt. of lead per fm. In the 72, driving south, the lode is about 3 ft. wide, and continues to be worth fully 1½ ton of lead per fm. A change for the better. The stope in the roof of the 60 north are worth about 1½ ton of lead per fathom, and those in the same level south about 1½ ton per fm.

**GREAT RETALLACK.**—George R. Odgers, John Harris, Feb. 20: The lode in the adit south is from 15 to 18 in. wide, composed of friable quartz, with stones of lead, but not in sufficient quantities to value, although a very kindly lode indeed. There is no change in the north end. We have not done a great deal underground this week, because we have put on all the force we had to get round the engine, and when we have been working, we have been driving on the lode, and the engine is still being put to work on Monday next, and we shall then be able to sink the shaft on both lodes, and we feel pretty confident that we shall be able to announce a good improvement in the No. 2 shortly after, as the lode in the shaft present all the indications for a bunch of lead at no great depth. We have set the shaft to sink 10 fms. for 601., so the easy nature of the ground will be at once apparent. We also think from the congenial nature of the ground on the No. 1 lode, with stones of rich silver-lead in the adit, in which we find strong carbonates, that this will lead to good results.

**GREAT SOUTH GILVERTON.**—J. Nancarrow, J. George, Feb. 15: We have commenced sinking Gifford's shaft below the 30; the lode is large, and has a fine appearance for lead. We have also commenced driving north in the 30 towards the north lode, and under the rich copper and lead seen in the 20. The lode in the 20 east is 2½ ft. wide, composed of flooken, prlan, lime, &c.; the water in this end seems to bespeak our being near the cross lode. The water has not increased in the last fortnight.

**GREAT WHEAL VOR.**—T. Julian, S. Harris, J. Jones, Feb. 20: Ivey's engine-shaft is being sunk 15 fms. below the 174; the new lift is fixed, and the shaft is now being driven on the lode, and the lode is large, and has a fine appearance for lead. We have also commenced driving north in the 30 towards the north lode, and under the rich copper and lead seen in the 20. The lode in the 20 east is 2½ ft. wide, composed of flooken, prlan, lime, &c.; the water in this end seems to bespeak our being near the cross lode. The water has not increased in the last fortnight.

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dered, timber is also sawn for buckets and backing, and the overhauling of the saw-machine is going on with, and if we can have the castings, I think in about a month we might put it to work. We are also preparing 16 heads of the new stamps, which we will set to work in the south, as soon as possible with our present staff. On the whole, the mine is looking better than when we sent you our last report for publication.—N.B. A capital stone of tin from the winze sinking below the 194. Full particulars next post.

**T. Julian, Feb. 21:** I am glad to be in a position to communicate the contents of Capt. John James's report, who is just come up from underground. The lode in the 194 winze is 1 ft. wide, good stones of tin; and the cross-cut north, in the 201, looking very kindly for the lode. We are just about the distance, by our dialling, where we expected to find it, if it continued the same underlie, which does not seem to be changed. The winze sinking below the 174, west of Ivey's, is also improving.

**GWYDYR PARK.**—W. Smyth, Feb. 19: There is no change to notice in Gwyn Lillip north end since last reported. The west end is still wet, and the lode showing spots of lead.

**HALLENBEAGLE.**—W. Bawden, Feb. 16: In consequence of the water being in, we have not been able to see the bottom of Pindler's engine-shaft for the past week. The lode in the 56, east of Stone's shaft, is of much the same character as last reported. In the 47, east of Stone's, we are expecting to see the cross-course shortly. At Reed's we are obliged to disconnect the flat-rods.

**HARWOOD.**—J. Race, Feb. 16: There is nothing new to note in the level going east in north string. No. 1 stope is also about as last reported, worth ½ ton of ore per fathom. No. 2 stope is worth 1½ ton of ore per fm.; No. 3 is worth 2 tons of ore per fathom. They are getting some very fine samples of ore from the drift in the west end to-day. I think we are going to have an improvement in this end



Figure 1 shows a schematic diagram of a single neuron. The diagram is labeled with 'a' and 'b'. It illustrates the structure of a neuron, including the cell body (soma), nucleus, dendrite, axon, and myelin sheath.



again. San Luis shaft has been deepened 2 varas 1 ft. 3 in., and No. 1 level commenced eastwards and extended 8 varas 2 ft. on a small but promising lode; the last few days this lode carries a string of pure galena of about 1 in. If the driving continues favourable we hope to communicate to No. 1 level, driving west of engine-shaft, by the end of March. San Augustin shaft has been deepened 2 varas 1 ft. 3 in., or say to 19 varas 2 ft. 9 in. below No. 1 level. We have commenced No. 2 level, west of this shaft, in a productive lode. At this point, No. 2 level, San Augustin lode forms a junction with another small lode, that we cut in No. 1 level about 5 varas north-west of shaft. In consequence of this junction the lode in No. 2 level is larger and richer than hitherto; the level we have now commenced shows the lode in bottom of same worth from 2½ to 3 tons per fathom. Owing to the very heavy rains that have fallen in the course of the month we have not been able to draw and dress up the stuff broken underground, so that the ore weighed into store has not reached the amount estimated by 26 tons. In this month also my estimate must necessarily be low, consequent on the removing of the horse-crusher from the western to the eastern mine, during which time we can only send into store the drill ore. I hope, however, to get the crusher to work in the course of next month. My estimate in cost of bargains in leading workings and stopes, and the amount of produce attainable therefor for the ensuing month, is as follows:—Produce, 7000 arrobas; cost, \$4,275 15s. 6d.; men, 86; or say 20 men in shafts and winzes to sink 11 varas, 32 men in levels to drive 52 varas, 28 men in stopes to spend 230 varas, and six men on tribute.

**BRITANNY.**—James Trevillian, Feb. 20: Tremuson Mine: The lode at the engine-shaft sinking below the 44 still continues large and hard, being composed of capel, quartz, and lead, and will yield for the length of shaft 25 cwt. of lead per fathom. In the 44, north of shaft, the lode in the present end is 1 ft. wide, producing saving work—a very kindly lode, with favourable ground for driving. We have one stope working in the back of this level, north of shaft, that will yield 6 cwt. of lead per fathom. In the add end, south of shaft, we have just driven through a small cross-course, composed principally of quartz; the ground is more favourable for quartz. There are about 5 fms. more to drive to reach the east and west lode, according to the underlie of the lode seen at the surface.

**CAPE COPPER.**—Owing to the carrying season having expired, the chief agent had deemed it well to avoid immediate expenditure in raising ore, and had, therefore, confined the returns to the ores obtained from the dressing floors, the yield from which was 148 tons for the month of December. The smelting-works had not been in operation during the month, owing to the imperfect state of the boiler to the blast-engine. There are now three blast-furnaces erected; the stocks of fuel at the wery month, is as follows:—Produce of coal. During the last portion of the time that the furnaces were at work the consumption of fuel was reduced to 16 per cent. of the ore treated. The first instalment of convicts—40 men—had arrived in Namaqualand. The present steamer has brought 53 tons of ore, and bills of lading are to hand for following shipments:—Per Ocean King, 610 tons of ore; per Glenavon, 220 tons of ore, 37 tons of metal, and 19 tons of regulus; per William Graham, 420 tons of ore.

**WEST GREAT WORK.**—A special report has been made upon this mine by Mr. G. M. Henty, of Great Wheal Vor. It is a young mine that has been quietly working its way, and is now assuming a position that has created considerable interest in the neighbourhood, and already attracted the attention of some of the leading mining men in London. The parent mine—Great Work—has for a long period been well known as a good dividend mine, producing the best quality tin in Cornwall, commanding always the highest market price. It is to be hoped that the indications in West Great Work may be followed by equal success.

**BOSWORTHEN AND PENZANCE CONSOLS.**—The allotment of shares in this company has been made, and from the reports of Captains Richard Pryor and Hosking there seems to be but little doubt that, with a vigorous prosecution of operations, the mine will become very remunerative to the shareholders.

**THE CREDIT FONCIER OF ENGLAND** held its meeting on Monday, and after a full discussion, in the course of which it was proposed (but the proposition received but little support) that seven additional directors should be added to the board, in order that the shareholders might be fairly represented in the management, the report was unanimously adopted, and Messrs. Maynard and Ford were re-elected auditors. Mr. Albert Grant, M.P., remarked that now, if ever, the directors are entitled to the thanks of the proprietors for their services during the past difficult half-year. He recommended the disaffected shareholders if they wished to get out of their difficulties, to have a little more faith and credence. He concluded by reading extracts from some financial papers, speaking in the highest terms of the report and the company's prospects. The proceedings terminated with a vote of thanks to and confidence in the board, carried by acclamation.

**PARKESINE.**—In the *Mining Journal* of Nov. 10 reference was made to the value of a coarse colloid invented by Mr. Alexander Parkes, of Coventry-road, Birmingham, applicable to an immense variety of useful purposes, and introduced at the Exhibition of 1862, under the name of "parkesine." Our notice has created great attention, in the United States especially, as the material is so well applicable, amongst other things, as a substitute for hard India-rubber, in connection with the supply of which there is at present a most unfavourable feeling existing between the manufacturers and consumers. There is a fine field for the introduction of parkesine, particularly as it is claimed that the material can now be produced at a few pence per pound; and the samples shown at the forthcoming Paris Exhibition will illustrate the great variety of purposes to which it may be put. There will be specimens as hard as stone, and as flexible as India-rubber, but possessing advantages over both, because superior to the action of water or heat. Parkesine can be produced in any known colour, as white as ivory, as black as ebony, or as beautifully tinted as a topaz or an amethyst. It can be made to carve like a stone, or receive the impression of a die.

**GEOLOGICAL SOCIETY OF LONDON.**—The annual general meeting was held on Feb. 15, when Mr. Warrington W. Smyth, the President, announced the award of the Wollaston Gold Medal to Mr. G. Poulett Scrope, M.P., F.R.S., in recognition of the highly important services he has rendered to geology by his examination and published descriptions of the volcanic phenomena of Central France, and by his works on the subject of volcanic action generally throughout the world; and in handing the medal to its distinguished recipient he bore personal testimony to the accuracy of his descriptions and the soundness of his conclusions, and observed that, however much theoretical views may change with the advance of our science, he felt assured that Mr. Scrope's name would remain linked with the study of this important class of the agencies which modify the surface of the earth. Mr. Poulett Scrope, on receiving the medal, expressed his gratitude to the President and Council for this recognition of his early labours. The President then stated that the balance of the proceeds of the Wollaston Donation Fund had been awarded to Mr. W. H. Baily, F.L.S., F.G.S., to assist him in the preparation and publication of an illustrated Catalogue of British Fossils; and, in Mr. Baily's absence, placed it, together with a diploma to that effect, in the hands of Sir R. I. Murchison, Bart., K.C.B., &c. Sir R. I. Murchison, in thanking the Council on behalf of Mr. Baily, remarked upon the conformity of this particular award to the design of the late Dr. Wollaston in establishing the Donation Fund.

The President then proceeded to read his Anniversary Address, in which he discussed some of the most important contributions to lithology and mineralogy during the past few years, prefacing it with biographical notices of lately deceased fellows, foreign members, and foreign correspondents, among the most distinguished of which may be mentioned Wm. Hopkins, the Rev. Dr. Whewell, P. N. Johnson, G. W. Featherstonhaugh, James Smith (of Jordan Hill), Charles Maclaren, Parkin Jockoff, Prof. H. D. Rogers, Prof. Nils de Nordenfalk, Dr. A. Oppel, Senor Casiano di Prado, Dr. C. T. Gaudin, Mr. J. A. E. Deslongchamps. The ballot for the council and officers was taken, and the following were duly elected for the ensuing year:—President: Warrington W. Smyth.—Vice-Presidents: Sir P. de M. G. Egerton, Bart., Sir Charles Lyell, Bart., J. Carrick Moore, Sir R. I. Murchison.—Secretaries: P. Martin Duncan, John Evans.—Foreign Secretary: R. A. C. Godwin-Austen.—Treasurer: Joseph Prestwich.—Council: Prof. Dr. T. Ansted, H. W. Bristow, P. Martin Duncan, Sir P. de M. G. Egerton, Earl of Enniskillen, Robert Etheridge, John Evans, David Fox, R. A. C. Godwin-Austen, J. Gwyn Jeffreys, Prof. T. Rupert Jones, Sir Charles Lyell, Edward Meryon, John Carrick Moore, Sir R. I. Murchison, Robert W. Mylne, Joseph Prestwich, Prof. Ramsay, Warrington W. Smyth, Capt. T. A. B. Spratt, Alfred Tylor, Rev. Thomas Wiltshire, Henry Woodward.

**LONDON ASSOCIATION OF FOREMEN ENGINEERS.**—The annual dinner of this association was held on Saturday, at the Freemason's Tavern, Queen-street, Mr. E. J. Reed, Chief Constructor of the Navy, in the chair. Among the guests at the principal table were Mr. Joseph Newton, of the Royal Mint, President of the Association; Major Palliser, Capt. Nolloth, R.N., Dr. Woolley, Mr. Chetwynd, Mr. John Penn, jun., Mr. Ravenhill, Mr. J. Keith Rennie, Mr. Joshua Field, Mr. Telford Field, Mr. Edward Humphrys, jun., Mr. Blyth, and numerous other representatives of large engineering establishments. In proposing the toast of the evening, the Chairman explained that the sole objects of the association were the diffusion of scientific knowledge among its members and the provision of pecuniary aid in sickness and old age. The presence of so large and influential a body of employers showed that no trade politics or other subjects of dispute between them and their workmen were deemed fitting subjects for the consideration of this purely scientific and benevolent association. He was happy to be able to congratulate the company on the steady and rapid progress which the society is making.—Mr. Newton (President) in responding, said that the eloquent speech which had just been heard left but little for him to say. Mr. Reed had regarded the association with favour for many years, and had been its friend through good and evil reports—in foul weather, and in fair. He knew its aims, its objects, and its aspirations, and in the remarks which the Chairman had made he had faithfully portrayed these. The society possessed two bases—the one being Benevolence, and the other Science. It sought to assist in age and infirmity those of its members who needed assistance, and to promote practical knowledge among such as were holding the post of foremen. Mr. Newton then congratulated the association on the presence of so many employers and scientific gentlemen as were their guests that evening, and concluded by proposing "Prosperity to the Employers of Engineering."

Labour," in conjunction with the names of Messrs. Robert Mallet, Joshua Field, J. K. Rennie, and Charles Barclay. This toast was enthusiastically received, and most admirably responded to by the gentlemen referred to. Two hundred and fifty gentlemen were present, and the contributions to the Superannuation Fund amounted to 100l. 12s. 8d.

## The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, FEB. 22, 1867.

COPPER.		IRON.	
Best selected, p. ton	84 0 0-86 0 0	Bars Welsh, in London	6 7 6-6 10 0
Tough cake and tile	81 0 0-82 0 0	Ditto, to arrive	6 10 0-6 10 0
Sheathing & sheets	85 0 0-86 0 0	Nail rods	7 0 0-8 0 0
Boils	90 0 0-90 0 0	Do. mch. Tynes Tees	10 0 0-10 0 0
Bottoms	91 0 0-91 0 0	Do. ditto	7 15 0-9 10 0
Old (Exchange)	72 0 0-72 0 0	Hoops ditto	8 15 0-9 15 0
Burra Burra	55 0 0-55 0 0	Sheets, single	9 10 0-11 0 0
Wire	0 1 0-0 1 0	Pig No. 1, in Wales	4 5 0-4 10 0
Tubes	0 1 0-0 1 0	Refined metal, ditto	4 0 0-5 0 0
BRASS.		Do. common ditto	5 10 0-6 0 0
Sheets	per lb. 10d. —	Do. mch. Tynes Tees	10 0 0-10 0 0
Wire	9d. —	Do. rail, in Wales	5 0 0-5 10 0
Tubes	11d. —	Do. Swed. in London	10 0 0-10 0 0
YELLOW METAL SHEATH.		To arrive	10 0 0-10 0 0
Sheets	p. lb. 7½d. —	Pig No. 1, in Clyde	2 14 6-3 6 6
Foreign on the spot	21 0 0	Do. f.o.b. Tynes Tees	2 6 0-2 6 0
" to arrive	21 5 0	Do. Nos. 3, 4, f.o.b. do.	2 6 0-2 7 0
ZINC.		Railway chairs	5 10 0-5 15 0
In sheets	28 0 0	" spikes	0 12 0-0 12 0
TIN.		Indian Charcoal Pigs	7 0 0-7 10 0
English blocks	90 0 0	In London p. ton	7 0 0-7 10 0
Do. bars (in barrels)	91 0 0	STEEL.	
Do. refined	93 0 0	Swed., in kegs (rolled)	14 0 0-14 10 0
Banca	88 0 0	(hammered)	16 0 0-16 10 0
Straits	85 0 0	Ditto, in fagots	16 10 0-17 10 0
TIN-PLATES.		English, spring	19 0 0-23 0 0
IC Charcoal, 1st qua.	1 12 0-1 13 0	QUICKSILVER (p. bottle)	6 17 0-7 0 0
IX Ditto, 1st quality	1 8 0-1 9 0	LEAD.	
IX Ditto, 2d quality	1 4 0-1 5 0	English Pig, com.	19 10 0-19 10 0
IX Coke	1 4 6-1 6 0	Ditto, ordinary soft	19 10 0-19 10 0
IX Ditto, 2d quality	1 10 6-1 12 0	Ditto, L.B.	19 15 0-19 15 0
Canada plates, p. ton	13 0 0-13 0 0	Ditto, W.B.	22 5 0-22 5 0
Ditto, at works	12 10 0-12 10 0	Ditto, sheet	20 10 0-20 10 0
At the works, 1s. to 1s. 6d. per box less.		Ditto, red lead	21 5 0-21 5 0
		Ditto, white	20 0 0-20 0 0
		Ditto, patent shot	23 0 0-23 0 0
		Spanish	19 0 0-19 0 0

**REMARKS.**—No improvement has been manifested in the Metal Market during the past week, but it has continued to present an appearance of renewed dulness and inactivity. The animation which there was in the market during the last month has entirely disappeared, and it has again relapsed into a very unsatisfactory condition; we trust, however, that this state of things will be only temporary, and that as the spring advances we shall find business again resuming a state of activity. At the present moment consumers will only buy to satisfy their immediate requirements, and merchant orders are only given out very sparingly. This, we presume, is done in anticipation of lower prices ruling ere long, but in this we think they are in error, as in the event of a demand springing up shortly (and there is not much doubt this will be the case) prices are sure to become firmer, and in all probability will advance, as they are now, in the cases of several metals, much below the average; and it may fairly be calculated that, as the effects of the last year's panic are wearing off, commercial matters generally will be pursued upon a sounder basis, and that altogether a better state of things will be established; the consequence of which will be, as far as the metal market is concerned, that prices will advance from the low point they have now reached in some cases, and become much firmer, and more generally remunerative. The advices received from India continue to bear a more favourable aspect.

**COPPER.**—The market for this metal has become very much depressed, and the advices received from Chili, stating the shipments to this country to be equal to 2000 tons of copper, and to the United States 600 tons, has not tended to make matters better. Prices have become easier, and still bear a downward tendency. Chili slab has been sold at 75l. to 75l. 10s., Burra at 85l., and there are sellers of Wallaroo at 84l. 10s. cash.

**IRON.**—In Staffordshire the improved demand for manufactured iron continues, and there is a decided increase in the amount of work done during the week, though as yet full time scarcely obtains anywhere. The most hopeful feature is a renewed enquiry for plates for shipbuilding, the demand for which has been in abeyance for some time. The Staffordshire iron trade is deeply interested in the renewed prosperity of the shipbuilding trade. There are some considerable contracts for railway iron advertised, and the ordinary requirements are larger. The weak point of the trade is the United States demand, which, it is to be feared, as soon as the shipments are finished for delivery before the operation of the new tariff commences, will experience a serious falling off. In Welsh, the leading works continue to be fairly employed, and during the past week there has been an accession of orders both on home and foreign account, and it is expected that others will shortly follow. Prices of rails and other descriptions of manufactured iron have an upward tendency; in some instances quotations have advanced from 5l. 10s. to 5l. 15s. and 6l. per ton, and there is every prospect of the price being maintained. At the same time, the reduction in the rate of wages will enable the ironmasters to enter into transactions more freely. Negotiations are on foot respecting some good American orders, and it is very likely that there will be an active enquiry from that quarter, as buyers on United States account are anxious to be supplied with as large a quantity of iron as possible before the restrictions of the new American Tariff Bill comes into force. In Swedish iron a very fair enquiry still exists. In Scotch pig-iron the amount of business transacted has been very limited during the week, and prices have varied very little. Last price received from Glasgow, 53s. 6d. cash.

**LEAD.**—Business has been only moderate during the week, and prices are rather easier. We now quote 19l. 10s. for common English pig, 19l. 15s. for L.B. and 22l. 5s. for W.B.

**TIN.**—The market for foreign continues in a drooping condition, and sales are very difficult to effect. Business has now been done in Straits at 85l. cash, and for arrival at the same price. Banca can still be bought at 88l. In English there is very little business doing.

**SPELTER.**—No improvement has occurred; on the contrary, prices are rather easier; about 100 tons on the spot have been sold at 21l., which still continues the quotation, the market remaining very dull.

**TIN-PLATES** are in fair request, and the works are well employed. **STEEL.**—There is still no stock in London.

**QUICKSILVER.**—Demand only moderate.

**BIRMINGHAM, FEB. 22.**—Bylands' "Iron Trade Circular" says—Symptoms of business become more hopeful, as Government prospects are regarded as more substantial. Bars, plates, and sheets are enquired for. Pigs moving more freely. Prices have steadied this week.

**THE COPPER TRADE.**—Messrs. Vivian and Younger (Feb. 22) write—Prices are again rather lower, and the demand continues small. A cargo of regulus has been done at 15s. 3d. per unit to arrive, and Chili bars have changed hands in considerable quantities at 75l. on the spot; English, however, both raw and manufactured, is very dull of sale; in Australia but little has changed hands at our quotation. At a slight reduction on present rates it is said there are large orders for most descriptions.

**COAL MARKET.**—The fresh arrivals this week only amount to 55, but the principal part were steamers. Business in house coal has ruled very heavy, and prices generally quoted a little lower. Hartley coals have not varied in price, but the trade continued dull. Hetton Wallend, 19s.; Original Hartlepool Wallend, 18s. 3d.; Hetton Lyon's Wallend, 16s.; West Hartley, 16s. Ships at sea, 65; cargoes unsold, 6.

**EXPORTS OF COAL.**—By the Monthly Circular of Messrs. Higginson, Liverpool, we learn that the quantity of coal exported in January was 515,560 tons, against 537,935 tons in the corresponding month of 1866, showing a decrease of 22,375 tons. The particulars are—From the Northern ports, 204,451 tons; Yorkshire, 16,236 tons; London, 4312 tons; Liverpool, 29,076 tons; Severn ports, 223,666 tons; and Scotch, 37,819 tons. The increase was—Yorkshire, 386 tons; Lon-

don, 620 tons; Severn ports, 27,107 tons; Scotch ports, 1156 tons. The decrease—Northern ports, 14,547 tons; Liverpool, 37,097 tons.

The MINING SHARE MARKET has not by any means been so active or so buoyant this week, nor have prices, generally, been so well sustained. In the abundance of unemployed capital, and the many first-class speculations on the market, it is somewhat difficult to account entirely for this depression, and we are disposed to think it is one of the ordinary lulls that the market is subject to after periods of excitement, and that in a few days probably another change may take place. A very unexpected fall has taken place in the standard for tin ore, while the price of the metal, we understand, remains without alteration. This has affected the price of several tin mines. The standard for copper ore is without alteration. West Chiverton, 61 to 63; at the meeting a dividend of 2l. per share was declared, but we have not yet received the statement of accounts or report. Chontales declined to 1 dis., but leave off 2½ to 2½. Some amount of disappointment has been expressed at the absence of advices by the West India Mail, but it appears when the Atrato left Greytown the river boat, with despatches from the interior, had not arrived, and other companies are in the same position in reference to news as Chontales. Prince of Wales, 33s. 6d. to 35s. 6d.; the ends continue of the same value as reported last week. Great Retallack shares have still further advanced, and leave off 3½ to 3½; the engine will be put to work on Monday, and sinking will be commenced on two lodes. The Trebellan, or No. 2 lode, presents indications for lead at no great depth. Bedford United, 20s. to 30s.; Carn Camborne, 21s. to 23s.; Chiverton Moor, 7½ to 7½ (call of 5s. paid); Clifford Amalgamated, 5½ to 6½; Cook's Kitchen, 9½ to 10; Drake Walls, 15s. to 20s.; East Bassel, 17½ to 20. East Wheal Grenville, 2½ to 2½; at the meeting the accounts showed a balance of 952l. 15s. 6d. against the mine, and a call of 3s. per share was made. The report states that an improvement is expected in the shaft. The 95 west is worth 3 tons of copper ore per fathom. This end is about 6 fms. behind the winze going down below the 85, and worth 4 to 4½ tons per fathom. The cost for the next quarter is estimated at 50l. to 100l. less than the last.

West Drake Walls shares advanced to 5s. prem., but leave off flat; the allotment of 12,800 shares at 2s. 6d. evidently induced many persons to realise the enormous profit upon them, and from the great number of shares offered the market became glutted and depressed. The speculation, however, remains the same, and ere long may get more settled and firm. East Caradon, 5 to 5½. Redmoor, 9s. to 11s.; in driving towards the silver branch some good black ore has been met with, in easy ground for driving. East Carn Brea, 3½ to 3½; East Gunnislake and South Bedford, 27s. 6d. to 32s. 6d.; East Lovell, 9 to 9½; East Russell, 3½ to 3½; Grambler and St. Aubyn, 5 to 6; Great Laxey, 15½ to 16½. Great South Tolgu, 12s. 6d. to 17s. 6d.; at the meeting the accounts showed a balance in hand of 795l. At Wheal Buller the 92, east of Stevens's, is worth 6l. per fm.; the 80 east, 20l. per fathom; the winze under this level is worth 35l. per fathom. Great Wheal Vor, 16½ to 17½; Hingston Down, 2½ to 3; Marke Valley, 4 to 4½; New Seton, 40 to 50; North Crofty, 4½ to 5½; North Downs, 7s. 6d. to 10s. North Roskear shares have declined to 6, 7; North Treskerby, 2½ to 2½; Prosper United, 3½ to 3½; Providence Mines, 24 to 26; South Condurow, 15s. to 17s. 6d.; South Grenville, 7s. 6d. to 8s. 6d.; South Herodsfoot, 4½ to 6½; Tincroft, 11½ to 12½; Trumpet Consols, 11 to 12; West Seton, 130 to 140; Wheal Bassel, 64 to 66; Wheal Chiverton, 8 to 8½; Wheal Grenville, 17s. 6d. to 20s.; Wheal Seton, 105 to 110; Wheal Trelawny, 9 to 11. Great North Laxey, 1 to 1½; the lode in the shaft is 2 feet wide, and looking altogether better. The 82 north is worth 1½ ton per fm.; 25 tons of lead will be sampled in a few days. Great North Downs, 3½ to 4½; the lode in Sleggan's is worth for the length of shaft 70l. per fathom, the 70 west is worth from 15l. to 20l. per fathom, and the 80 west is worth 15l. per fathom. At Caradon Consols meeting the accounts showed 65l. 1s. 10d. against the mine, and a call of 10s. per share was made. The report states that, although no ore to attach value to has yet been met with in the 90, yet from the appearance of the lode in the west end, and the character of the ground around it, the agent thinks it will soon improve, the end being nearly under the commencement of the productive ground in the 80, and the lode of an equally promising character. West Caradon, 9 to 10; the sale of ore realised 821l. 16s. 6d.

The market for Mine Shares on the Stock Exchange during the week has been dull, and changes in prices of shares quite unimportant. West Chiverton, 61 to 63; dividend yesterday 2l. per share; the report is more favourable than at any former period. Chiverton, 8 to 8½; a call of 2s. 6d. per share was made. Chiverton Moors firm, at 7 to 7½; a call of 5s. per share made; the report is considered very good. Prince of Wales shares in demand, at 34s. to 35s.; the 55 fm. level west is reported as a fine course of ore, worth 40l. per fathom. The 45 east is worth 40l. per fm. The winze in the bottom of this level is worth from 45l. to 50l. per fm. Certainly the mine would appear to be opening up well. Great Retallack, 3½ to 3½; Great Wheal Vor, 16 to 16½; Great Laxey, 15½ to 16. Westminster, 5 to 5½; the engine-house is nearly completed. The eastern part of the mine bids fair to be an equal success to the western mine, with the advantage of being drained by the Halkyn deep level. Foreign mines have been dealt in to a moderate extent. Del Rey's are steady, at 52 to 53. Don Pedro, 4 to 4½ prem.; Anglo-Brazilian, par to ½ prem.; Cape Copper, 1½ to 2 prem.; Port Phillip, 1½ to 1½; Chontales, ½ to ½ dis.; Frontino, 3s. 9d. to 6s. 3d. per share; United Mexican, 2½ to 2½; Copper Smelts, 4 to 4½; Yorke Peninsula, 3-16ths to 5-16ths per share.

**IRISH MINE SHARE MARKET.**—The general dulness on our Stock Exchange, to which we had to allude last week, is still prevailing, and affecting all classes of securities, notwithstanding the tendency in the London market to improvements in Government stocks. Of course, the Quixotic attempts of the American Fenians to plunge our people and country into miseries similar to those which so recently devastated one of the finest and richest regions of the continent on the other side of the Atlantic, have left their traces behind, by having created an apprehension that at least English capitalists will for some time to come keep aloof from investing money in a country so easily accessible to marauders as our western provinces have just proved to be. There are, however, strong hopes entertained that the Government will at length see the advisability to do something radically effective against the possibility of the recurrence of such Transatlantic surprises, and that the magnificent harbours and bays of the south and south-west of Ireland will, ere long, be transformed into strongholds for the British Navy, and that after the present lull, though fortunately insignificant in itself, measures for the better protection of England, as well as of Ireland, which, with all the natural facilities at hand, would cost but little, will be cheerfully voted before the rising of the present session of Parliament. In addition to this hope, we have also acquired the re-assuring conviction that the clergy of our country is sincere and energetic in opposing attempts to throw the country into disturbances which could endanger life and property; and that all those of our people who have any regard for their spiritual advisers, of whatever denomination or creed, follow the good example set to them. As this conviction cannot fail to become stronger in England as well as here, when the details of the recent events in Kerry are better known and fully understood, we may look forward to a return of general confidence in all our legitimate undertakings. But during the transition from a feeling of uncertainty and fear to such restoration of confidence, prices of shares in national enterprise will rule rather low, but thereby offer excellent channels for investment. Mining shares in particular seem to afford at present good opportunities for speculative purchasers, although, in consequence of their character of soundness and stability, they have not receded much during the last few days. Wicklow Copper Mining Company's shares (2l. 10s. paid), which left off last week at 24l. 7s. 6d., have repeatedly been taken at the same price, and much more business would be done in them if holders would submit to even a trifling reduction. Buyers have, however, been more successful in the shares of the Mining Company of Ireland (7l. paid), they having dropped 8s. 9d. on Wednesday last, and for the week about 15s. per share, last week's closing price having been 18l. 7s. 6d., while they have since changed hands at 17l. 10s. to 17l. 12s. 6d.; however, at the former price many



more would have been purchased. Connors shares also declined, having fallen from 17s. 6d. to 16s. General Mining Company for Ireland shares have been done at 2s. 15s., and Killaloe Slate Quarry shares have dropped to 14s. (20s. paid), and continue on sale.

John Hoare, director of the East Holyford Mining Company, and promoter of the National Fishing Company of Ireland, is in the Insolvent Court. On cross-examination, he admitted that there was no board of directors legally appointed, and that he himself was only a director nominally. The insolvent was opposed by several creditors, and Judge Miller remanded him for 12 months.

At Truro Ticketing, on Thursday, 3167 tons of ore were sold, realising 14,334. 0s. 6d. The particulars of the sale were:—Average standard, 116. 2s.; average produce, 6½; average price per ton, 4. 10s. 6d.; quantity of fine copper, 198 tons 9 cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Jan. 17.	3609	113 15 0	6½	4 14 0	14s. 4½d.	271 16 6
" 24.	1873	104 17 0	8½	5 19 0	14 4	71 13 0
" 31.	2961	112 8 0	6½	4 7 0	13 9½	68 19 0
Feb. 7.	1715	114 2 0	6½	4 6 0	14 0	70 0 0
" 21.	3167	116 2 0	6½	4 10 6	14 5	72 0 0

Compared with the last sale, the standard is slightly better. Compared with the corresponding sale of last month, the advance has been in the standard 12s. 6d., and in the price per ton of ore about 9d.

The Standards of Tin Ore were reduced on Tuesday, and are now as follows:—Common, 79s.; superior common, 80s.; fine, 82s.; superior fine, 83s.

At Herodsfoot Mine meeting, on Feb. 12, the accounts showed a profit on the four months' working to end of December of 1543. 9s. 10d., a balance of assets over liabilities of 3301. 5s. 2d., and a cash balance of 1428. 17s. 8d. A dividend of 30s. per share was declared. Messrs. Loam, Hawke, and Isaac were elected members of the committee. Capt. Trevillion reported that "the mine, on the whole, is in a very good and satisfactory state of working, and with the one great point before us, which will shortly be reached—the intersecting the lode at the bottom, or 100 fm. level—will, no doubt, so augment our resources that we may with confidence look forward for years for regular and continuous dividends."

At When Owles meeting, on Feb. 15, the accounts for Oct., Nov., and Dec. showed a debit balance of 1373. 13s. 7d. Work performed during the quarter:—168 fms. 4 ft. driven in levels, and 26 fms. 0 ft. 9 in. sunk in shafts and winzes; 30 pares stopping on tut for tin, and 28 piches on tribute. They have about 50 tons of tin unsold.

At Wheal Owles meeting, on Feb. 15, the accounts for the three months ending December showed a debit balance of 1373. 13s. 7d., against which there are about 50 tons of tin dressed, but unsold.

At Great Caradon Mine meeting, on Monday (Mr. Bartlett in the chair), the accounts showed a credit balance of 77. 18s. 2d. A call of 2s. per share was made.

At Caradon Consols Mine meeting, on Wednesday (Mr. J. A. Buckland in the chair), the accounts showed a debit balance of 65. 1s. 10d. A call of 10s. per share was made. The report of the agent stated that, according to present appearances, he thought they would obtain about the same quantity of ore for the next sale as was sold at the last.

At the Penhale and Lomax Consolidated Silver-Lead Mine meeting, on Wednesday (Mr. T. E. Foxes in the chair), it was unanimously agreed to issue 2000 new shares of 1s. each, to bear a preferential dividend of 15 per cent. per annum. The report of the directors was unanimously adopted, and the directors were re-elected. Details in another column.

At West Wheal Frances meeting, on Feb. 14, the accounts for the three months ending November showed a debit balance of 335. 6s. 11d. Capt. O. Thomas and Son, C. Craze, and H. Rabling reported that the rough weather in January checked the operations in dressing tin, so far that the tin returned and sold is nearly 3 tons less than that raised; this, together with the purchase of a boiler for the steam-whim, has resulted in showing a loss on the three months' working. The present price of tin is 2s. a ton more than the average of the past three months.

At the English and Australian Copper Company annual meeting, on Thursday (Mr. R. A. Routh in the chair), the report of the directors was received and adopted. A dividend of 1s. per share was declared. Details appear in another column.

At the General Mining Association (special) meeting, on Tuesday (Mr. A. C. Bridge in the chair), it was unanimously agreed to increase the capital of the company by the issue of 2500 new shares of 2s. each. Details will be found in another column.

The Don Pedro North del Rey Mining Company announce that the whole of the accounts have not come home by the last mail, as was expected. Full and correct information has arrived to enable the directors to state that they will recommend a dividend of 2s. per share, or upwards of 14 per cent., at the general meeting, which will be held as early in March as possible.

The Great Western Colliery Company (Limited) have declared an interim dividend, payable on March 1, at the rate of 8 per cent. per annum for the six months ending Dec. 31, 1866.

The Court of Chancery has appointed Mr. H. H. Cannan, of Walbrook, provisional official liquidator of the Garnett Iron and Steel Works Company (Limited).

Mr. C. F. Kemp, liquidator of the South Cornwall Mining Company (Limited), has made a call of 1s. 10s. per share on the contributors.

Creditors of the Unzinto Plantation and Trading Company of Metal (Limited) must send their claims before the 28th inst. to the liquidator, Mr. J. Waddell, public accountant, Union-court, Old Broad-street, E.C.

On the Stock Exchange, operations in Mining Shares during the week have been of fair average extent. The following prices were officially recorded in British Mining Shares:—East Caradon, 5½; East Carn Bren, 2½, 3, 3½, 3½; Great Wheal Vor, 17, 16½, 16; Great Laxey, 16; Great South Tolgus, 3; East Lovell, 9½; West Chiverton, 6½; East Wheal Russell, 3½. In Colonial Mining Shares the prices were:—Scottish Australian, 1½; Yudanamutana, 1½; Cape Copper, 8½; Port Phillip, 3; General, 19½, 20; Kapunda, 1. In Foreign Mining Shares the prices were:—Chontales, 2½, 2½, 2 5-16ths; St. John del Rey, 53½, 52½; United Mexican, 2½, 2½, 2 11-16ths, 2½, 2 9-16ths, 2½, 2½; Don Pedro, 5-16ths, 3, 7-16ths, 5-16ths prem.

THE AMERICAN SCHOOL OF MINES.—Some two years since the foundation of a School of Mines in connection with Columbia College, New York—the oldest collegiate establishments in the United States—was announced in the *Mining Journal*, and it remarked that the advantages which must accrue to the mineral interests of America therefrom could scarcely be over-estimated; it was mentioned also that the principal chairs had been given to the most competent men that could be obtained either in Europe or America, and that the standard of instruction fixed upon was as high as in any of the mining colleges of Europe. The school is now in the third year of its existence, and the extent to which it has been appreciated by the Americans may be judged of by the high position it has already attained. It has an able corps of professors, presided over by Dr. F. A. B. Barnard, the President of the College, and has at present 109 students (a number which is, we fear, nearly thrice as large as can be claimed by the Royal School of Mines in London, which has been in existence more than thrice as long) in actual attendance. Its laboratories for analysis, quantitative and qualitative, and for assaying, are unsurpassed in extent, and in the completeness of their appointments, by any in the world; its collections, though not yet large, are ample for purposes of illustration, and are constantly increasing. It has a library, valuable as far as it goes, but containing not much over 1000 volumes at present; and a large list of scientific journals, including among the number most of those devoted to mineralogy, mining, and metallurgy. No students have yet been graduated, but those who first entered will soon have completed their three years of study, and come to their final examination. Altogether the school has thus far proved a success to a degree surpassing the most sanguine expectations of its early friends, and it is to be hoped that ere another three years have passed the miners of England will take as much interest in the School of Mines in Jermyn-street as the Americans have taken in that at Columbia College.

IMPROVED ROTARY PUMP.—A compensating rotary suction and force pump is at present being manufactured by Messrs. Foster, of Brooklyn. There is a stationary cylinder, with ports on each side; in this rotates a smaller one, the axis of which is eccentric, with or above the axis of the outer cylinder. The inner cylinder carries four arms or valves that move freely in and out of openings fitted to receive them as they revolve, and press against the outer casing or cylinder, which forces the valves in and out during the rotation. The valves are opening as they pass the inlet, and continue to open and exhaust until one-fourth of the revolution, when the chamber begins to contract and reduce the space, as the outlet is brought in communication with it to force out the fluid. The advantage claimed for this pump over other rotary pumps is in introducing spiral springs between the valves, where they meet in the inner cylinder, to force them out, so as to press firmly against the outer cylinder, and to compensate for wear. Another advantage consists in having an inner moveable head, which can be set up and adjusted by screws from the outside to produce a close joint. These set screws are secured by tubular lugs and heads to the adjustable head, so as to withdraw it when necessary. Its construction is simple, compact, and strong, runs either way equally well, and does not choke.

THE CAUSES OF COLLIERY ACCIDENTS.—Why is it, that with so many examples of what can be well done, a large part of our collieries should be in a condition far from satisfactory? And how does it come to pass that every now and then a horde of victims has been sacrificed in a pit supposed to be

a model of efficiency? To these we may reply—1. That thoughtlessness and opposition to discipline among the men, and ignorance of principles and of good practice, with parsimoniousness among the masters and managers, are far too common.—And, 2. That the sources of accident are so numerous, and often so obscure, that no amount of precaution can be expected to obtain perfect security. Though neither men nor owners are open to the sweeping charges of recklessness often brought against them, we must expect, so long as we find among the pit's company careless, unsteady, and over-daring rule breakers, and collieries managed by a shopkeeper or joiner, or half-educated young "gentleman," a nephew of the owner, that accidents will occur, which would be certainly preventable under better auspices.—Prof. WARINGTON SMYTH, M.A., F.R.S., in his "Coal and Coal Mining."

TO LEAD SMELTERS AND SILVER REFINERS.—WANTED, A MAN who THOROUGHLY UNDERSTANDS THE PRICES OF CRYSTALLISING AND REFINING SILVER-LEAD ORES. Good character indispensable.—Apply, by letter only, to Messrs. WESTON and COLLINGBOY, 18, Peter-street, Bristol.

TO IRON MASTERS.—THE ADVERTISER, who has had experience for many years in manufacturing all sorts of merchant bars, angle iron and rails, plates and sheets, is now OPEN for RE-ENGAGEMENT as OUT-DOOR MANAGER. No objection to go abroad. First-class testimonials from last employers, with highest references, will be given.—Apply to "B. B.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

A YOUNG GERMAN, well versed in the ASSAYING by the wet process of COPPER ORES, both poor and argentiferous, WANTS a SITUATION.—Proposals, post paid, to be addressed, to "C. P.," Poste restante, Reichenberg, Bohemia.

CHINA-CLAY.—THE ADVERTISER has a first-rate bed of CHINA-CLAY, which he is ANXIOUS to WORK, and would ADMIT a CAPITALIST as a PARTNER, who has £2000 at command. The profits would be at least 20 per cent. per annum.—Apply, in the first instance, to "J. G.," Post-office, Perran Porth, near Truro.

CARBONATE OF BARYTES WANTED, in large or small quantities. Quote price and quantity to Mr. W. BOUSTRED, Auctioneer, Pontesbury, Salop.

WANTED, CARBONATE OF BARYTES, and SULPHATE. State price per ton.—Address, "A. Z.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

WANTED, AN AGENT for the HEBDEN MOOR LEAD MINES, WHARFDALE, YORKSHIRE. Preference given to one who has been engaged in the North of England. Must be practically acquainted with underground and surface operations, and pumping; also, able to dial the ground and draw plans.—Apply to Mr. JOSEPH STORR, 6, Upper Fountaine-street, Leeds, stating qualifications and salary required.

WANTED, by a Young Man, who has had considerable experience in MINING, ORE DRESSING, &c., and has a thorough knowledge of ASSAYING LEAD, COPPER, SILVER, GOLD, &c., a SITUATION as MANAGER, SUB-MANAGER, or otherwise.—For references and further particulars, address, "D. D.," MINING JOURNAL office, 26, Fleet-street, London.

WANTED, A RE-ENGAGEMENT as COLLIERY MANAGER. Many years' experience and first-class testimonials. No objection to go abroad.—Apply to "H. M.," MINING JOURNAL office, 26, Fleet-street, London.

WANTED TO EXCHANGE, 6 Prince of Wales, 20 Gwydyr Park (call paid), 10 Mineral Rights, and £2 10s. in money, for 10 (call paid) tales (call paid).—Address, Mr. W. TANNER, 70, Faulkner-street, Manchester.

WANTED, a 30 to 40 in. cylinder CONDENSING, or 20 to 30 in. HIGH-PRESSURE HORIZONTAL STEAM ENGINE, suitable for mill or forge work, second-hand, but must be in good condition.—Apply, with full particulars, to "A. B. C.," Post-office, Swansea.

WHEAL BASSET CONSOLS.—WANTED TO PURCHASE TWO HUNDRED SHARES IN THIS MINE.—Address, "Investor," MINING JOURNAL office, 26, Fleet-street, London, E.C.

INVESTMENT.—AN EXCELLENT OPPORTUNITY now offers for INVESTING from FIVE HUNDRED to ONE THOUSAND POUNDS, on highly advantageous terms. A minimum income of 33 per cent. per annum for three years will be guaranteed.—For particulars, address Messrs. BULL, KENT, and Co., St. Clement's House, Clement-street, E.C.

STEAM COAL COLLIERY (WITH BLACKBAND AND FIRST-CLASS FIRE-CLAY)—TO CAPITALISTS.—NOW FOR SALE, BY PRIVATE TREATY. Coal on Government list.—Apply to Mr. ELIAS J. BLOM, Mineral Estates Office, Swansea.

A GENTLEMAN, going abroad, DESIRES TO DISPOSE OF HIS INTEREST, as lessee, in certain MINING PROPERTIES IN SCOTLAND AND ISLE OF MAN.—Full particulars on application to Messrs. LEES and GRAHAM, Accountants, 54, John Dalton-street, Manchester.

A GENTLEMAN having an extensive connection with merchants manufacturers, and others, would be GLAD to UNDERTAKE the SALE OF PATENTED ARTICLES or INVENTIONS, upon commission.—Apply to Mr. W. T. RAWLE, patent and mining agent, 8, Small-street, Bristol.

CHONTALES GOLD AND SILVER MINING COMPANY (LIMITED).—Notice is hereby given, that the directors have this day made a CALL of TEN SHILLINGS PER SHARE, payable at the Imperial Bank, Lombury, on or before the 22d day of March next.

N.B.—By the Articles of Association calls in arrears are subject to interest at the rate of 10 per cent. per annum.  
185, Gresham House, Old Broad-street, London, Feb. 15, 1867.

GREAT RHOSMOR MINING COMPANY (LIMITED). HOLYWELL, FLINTSHIRE.—TENDERS will be RECEIVED at the office of the mine, No. 15, Lord-street, Liverpool, until 24 March proximo, for an 80 in. CORNISH PUMPING ENGINE and 70 fms. of 24 in. PITWORK, the latter to include two plungers complete.

The engine must be nearly new, and in perfect order, with three boilers, to be delivered on the mine, and subject to the approval of the company's agent. Particulars, as to carriage, &c., can be had of Captain F. EVANS, agent, at the mine.

THE CWT-Y-BUGAIL SLATE COMPANY (LIMITED).—Notice is hereby given, that an ORDINARY GENERAL MEETING of the shareholders of the above company will be HELD at 9, King's Arms-yard, Moorgate-street, London, on WEDNESDAY, the 27th of February, 1867, at one o'clock precisely.

THE MINERA RAGMAN MINING COMPANY (LIMITED).—Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders of the Mining Ragman Company (Limited) will be HELD at the Wynnstay Hotel, Wrexham, in the county of Denbigh, on THURSDAY, the 28th day of March, 1867, at one o'clock P.M., for the purpose of taking into consideration the advisability of dissolving the company, and winding the same up voluntarily, under the provisions of the Companies Act, 1862, and to appoint a liquidator. By order of the Board of Directors, 3, Temple-row, Wrexham, Feb. 21, 1867. THOMAS HUGHES, Sec.

THE IMPERIAL LAND COMPANY OF MARSEILLES (LIMITED).—Notice is hereby given, that the FIRST ORDINARY GENERAL MEETING of the company will be HELD on THURSDAY, the 28th day of February 1867, in the Large Room at Exeter Hall, Strand, London, at twelve o'clock at noon precisely, when the directors will present a report and a balance-sheet for the past year.

The transfer books will be closed from Monday, the 18th, to Thursday, the 28th inst., both days inclusive. By order of the Board, GEORGE M. BRIGHT, Sec.

10, St. Swithin's-lane, London, E.C., Feb. 18, 1867.

TO COAL OWNERS, AND OTHERS. THE LONDON PATENT COAL COMPANY are now GRANTING LICENSES for the USE of their PATENT for the UTILIZATION of COAL DUST. All communications to be addressed to the Managing Director, 26, Martin's-lane, Cannon-street, E.C.

SLATE QUARRY REPORTS.—JOHN BOWER, D.C.L. Oxon, Barrister-at-law, who has been for nine years Manager and Director of the Snowdon Slate Quarries Company (Limited), is PREPARED to INSPECT and REPORT on any QUARRY or SLATE VEIN in NORTH WALES, and his REPORT would include every fact FAVOURABLE or UNFAVOURABLE. Address, Glydyr View, Llanberis.

JAMES SCOTT and CO., STOCK AND SHAREDEALER, 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C. All Stock Exchange securities dealt in at close market prices for cash or the bi-monthly settlement. References given to any town in the United Kingdom. JAMES SCOTT and Co. have SPECIAL BUSINESS in the following MINES:—East and West Caradon, East Lovell, East Wheal Russell, North Crofty, Frank Mills, Drake Walls, Prosper United, Prince of Wales, Great South Tolgus, Chontales, and Frontino and Bolivia.

SHAREHOLDERS IN PUBLIC COMPANIES desirous of avoiding calls and further responsibility will find purchasers on applying to Messrs. BARRETT and CO., 78, LOMBARD STREET, CITY, and No. 20, SPRING GARDENS, CHANCERY CROSS. Stocks, shares, mining, and other miscellaneous securities bought and sold. Investment Review on application. Cash advances made.

THE STOCKTON AND HARTLEPOOL MERCURY AND MIDDLESBOROUGH NEWS (published at Hartlepool) is eminently the organ of the Coal, Iron, and Iron Shipbuilding Trades in the extensive Mining and Maritime District of South Durham and Cleveland, with which it has been closely identified since its origin. The "Mercury" was for years the only newspaper published in South Durham and Cleveland, and is yet the only one published under better auspices. Advertisements to be forwarded to the publisher, Mr. JOHN H. BULL, Southgate, Hartlepool.

## COAL CUTTING MACHINERY.

THE COLLIERY PROPRIETORS of SOUTH LANCASHIRE and CHESHIRE, being anxious to ENCOURAGE the DEVELOPMENT of

## COAL CUTTING BY MACHINERY,

Have determined to offer—

THREE PRIZES—viz., £500, £200, AND £100,

For the FIRST, SECOND, and THIRD BEST MACHINE respectively, which, in the opinion of the Committee appointed for that purpose, shall be most suitable for the requirements of the trade; and the inventor of which shall comply with the regulations laid down by the Committee.

A copy of the regulations, and further particulars, will be furnished on application to the undersigned.

All competitors must furnish the machines intended for trial, in Lancashire, not later than the 1st November, 1867.

MASELL WM. PEACE, Wigan, Law Clerk to the Association.

February 11, 1867.

MESSRS. DEBENHAM AND CO., No. 37, MOORGATE STREET, LONDON, E.C. (and at ST. ALBANS).

TRANSACT BUSINESS in every description of STOCK EXCHANGE SECURITIES, MINING and MISCELLANEOUS SHARES, at close market prices. FOR SALE:—50 Frontino and Bolivia, 75 Prince of Wales, 10 North Roskear, 20 Bryn Gwilog, 10 Wheal Vor, 20 East Russell, 100 New Quebrada. BUYERS of Worthing and West Caradon.

\* We shall give a SUPPLEMENTAL SHEET with next week's Journal, in which will be published—the Annual Statistics of the Mining Interest; Mr. Gunther's paper on Mineral Deposits in Brazil; Coal in Russia; The Copper Mines of Chili and Bolivia; Duration of our Coal Fields. We shall also bring up the arrears of Prof. Warington Smyth's Lectures at the School of Mines.

PARIS EXHIBITION, 1867.—In order that all useful mechanical novelties connected with mining and metallurgy, or with the sciences allied thereto, may be fully described in the *Mining Journal*, the Editor has made arrangements to send a special representative to Paris, to make the necessary examination of the machinery, apparatus, &c., exhibited. To facilitate such examination, it is most desirable that exhibitors should supply, as soon as convenient, mechanical descriptions of their inventions, &c., which will be regarded as confidential communications until the articles referred to have been examined. Communications may be forwarded either direct to the Office, 26, Fleet-street, London, or to the care of Messrs. Vimeux, Stouff, and Co., Bankers, 3, Rue Daval (Beaumarchais), Paris.

## LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Feb. 15	Isle of Man Mining Co.	100	£26 0 0	Panther Company.
18	Stipstones	60	12 8 0	Walker, Parker, & Co.
19	Dylife	100	12 16 0	ditto
21	Wheal Mary Ann	52	23 17 0	R. Mitchell & Son.
—	ditto	50	14 19 6	Sims, Williams, & Co.
—	Isle of Man Mining Co.	100	14 11 6	Walker, Parker, & Co.

## BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Jan. 16	Stipstones	11¼	£3 12 6	Kenrick & Son.

## BLACK TIN.

Date.	Mines.	Ts. c. q. lbs.	Price p. ton.	Amount.	Purchasers.
Feb. 14	St. Wh. Vor Utd.	5 2 3 18	..	£2905 19 0	—
19	Penhale Wh. Vor	4 0 1 20	..	53 0 0	—

## COPPER AND COPPER ORES

sold at LIVERPOOL, from January 31 to February 14.

Messrs. Pitcairn-Campbell and Co. (Liverpool, Feb. 15) write:—The news from the West Coast by the mail of Dec. 17, received here on Feb. 1, after our last report was written, advising small charters, caused a sudden and active demand for bar copper, and considerable sales, principally for arrivals, took place; subsequently, however, the market reacted, and the advance has been, in a great measure, lost. The demand for English copper continues very dull. Quotations are 76. 10s. for bars, 82. 10s. to 83. for ingots, 15s. 3d. to 15s. 6d. for ore and regulus, and 16s. to 16s. 3d. for Barilla. Sales since our last have been—

Mine or ship.	Tons.	Price.	Mine or ship.	Tons.	Price.
Ing.—Urménita	90	£82 0 0	Reg.—Acacia	130	0 15 6
Ing.—Urménita	145	82 0 0	Bars—Coquimbana	69	76 10 0
Ing.—Urménita	50	83 0 0	Ore—Moonta	309	0 15 3
Bars—Arica	100	76 10 0	Bars—Glenudal	309	77 10 0
Bars—Arica	396	77 0 0	Ing.—Urménita	200	82 10 0
Bars—Hertfordshire	70	77 10 0	Reg.—Eastern Chief	500	0 15 4½
Bars—Santa Lucia	150	77 0 0	B'lla—Bertha Marian	106	0 16 0
Reg.—Copalpo	111	0 15 4½	Bars—Second hands	25	76 0 0
Ore—Acacia	316	0 15 6	Bars—Eastern Chief	25	76 0 0

The arrivals have been—at Liverpool, 242 tons bars, ex Birky; 18 tons bars, ex Fastheia; 106 tons Barilla, ex Bertha Marian; 220 tons bars, ex Santa Lucia; 466 tons bars, ex Arica; 233 tons ore and 571 tons regulus, ex Carmelita. At Swansea, 313 tons regulus and 200 tons ingots, ex Star of the West; 710 tons ore, ex Henry Bath.

Stocks of copper (Chilian and Bolivian) in first and second hands likely to be available are—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool	1078	2010	2614	615	373
Swansea	5351	4668	213	—	64

## COPPER ORES.

Sampled Feb. 6, and sold at the Royal Hotel, Truro, Feb. 21.

ditto	82	4 19 6	ditto	36	9 4 6
ditto	75	3 3 6	Gawton Copper	52	2 8 0
ditto	73	3 10 6	ditto	39	2 17 0
ditto	41	12 19 0	ditto	37	1 19 0
ditto	27	11 2 6	ditto	16	6 3 6
Marke Valley	86	3 2 6	Wheal Friendship	69	5 15 6
ditto	82	2 17 6	ditto	19	14 1 6
ditto	77	5 6 6	Bedford United	49	4 1 0
ditto	55	5 0 6	ditto	36	4 1 6
ditto	53	4 4 6	Prince of Wales	52	8 5 0
ditto	50	1 9 6	ditto	23	7 8 0
ditto	49	2 12 0	Wheal Crebor	27	3 4 6
East Caradon	70	4 2 0	ditto	27	6 4 0
ditto	72	4 3 6	Sortridge Consols	27	3 11 6
ditto	60	4 2 0			



**WATSON AND CUELL'S MINING CIRCULAR**  
**WATSON AND CUELL,**  
**MINING AGENTS, STOCK AND SHARE DEALERS, &c.**  
**1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.**

**MESSERS. WATSON AND CUELL** having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and the state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1842), "Cornish Notes" (second series, 1843), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON and CUELL have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON and CUELL, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public that they transact business in the public funds, railways, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are also daily asked their opinion of particular mines, as well as to "recommend" mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL, having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

**GREAT NORTH LAXEY.**—We said last week, to show the erroneous statement of the Isle of Man shareholders, that the mine had been bought for a small sum, and sold at a large profit, that the directors still held 1800 of the original shares, and we are now informed that nearly 4000 shares are still held by parties to whom they were originally allotted. We have also to thank some of the shareholders for having (perfectly unsolicited on our part) sent us their proxies for the general meeting.

**MONA.**—We are able to say what the shares were issued at in East Laxey, or Reineine Laxey, nor how much was premium. East Laxey in the Share List is marked 27 1/2, paid, which would make 15,000, expended in this mine. Reineine is marked 47, paid, which would make 24,000, to be accounted for.

**SOUTH H.**—Herodfoot was originally brought out by us in 256 shares of 4l. each. It commenced dividends in 1851, and has paid about 42,000l. profit. The ore, if we remember rightly, came in at the 80 in the south ground, towards South Herodfoot. This latter mine is in about 600 shares.

**"ISQUIRE."**—The old set of Wheal Mexico, now called "North Retallack," was offered to the Retallack Company a year or two ago. It was to be worked as a distinct mine, with an annual dead rent of 25l. a year. At the time it was offered several of the shareholders in Retallack were bankrupt and insolvent; the mine was heavily in debt, and all available means of getting in calls seemed useless, and, as we, as treasurers, were advancing 100l. to 200l. per month to pay the wages of the men. Under these circumstances it would have been madness for the Retallack Company—or the solvent part of it—to have taken upon itself the large outlay required for an adjoining mine, and the offer of it was refused, and rightly so, when its value was problematical, and the outlay required to work it a certainty. Now, it derives its value from the discoveries made in Retallack, and we may observe that but for our heavy advances for four or five years to the Retallack Company, when the majority refused to pay calls, the discovery would never have been made, for even their benefit, let alone the premium now obtained for "North Retallack," though others would like, it seems, to take the credit when things are successful. If shareholders will join us in rescuing Wheal Union, we might make almost as good a thing of it as Retallack.

"R. J. M."—We understand the same dividend will be declared at next meeting, and that there is no real cause for the decline in price.

**BRITISH, COLONIAL, AND FOREIGN PATENTS, REGISTRATIONS, DRAWINGS, &c.**

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**GREAT LAXEY MINING COMPANY (LIMITED).**

TO THE SHAREHOLDERS.

An advertisement, signed Geo. W. Dumbell, Chairman of Directors, which appeared in last week's *Mining Journal*, contains a vein of clever malice, which, if left unnoticed, might seriously compromise me in the eyes of those whose good opinion I greatly value.

The Directors and their Chairman have only themselves to blame in having rendered it incumbent on me, in attempting my own vindication, to place in their proper position, before the shareholders, this august body of five gentlemen, who would lead you to infer that they are the sole judges of the bona fides of any statement that may be made respecting your property.—In fact, that they alone are capable of affording correct information. I am charitable enough to hope that this feeling on their part is the result of mere ignorance, rather than prompted by any more unworthy motive.

It cannot be questioned for one moment, but that Great Laxey is a most valuable property, and since my connection with it I can safely say, and confidently appeal to a very large number of your body to confirm that assertion, that none have appreciated it more highly than I have; and the statement made by Mr. Dumbell and his co-directors, that my advertisement was "evidently published with an intention to injure the company," is well worthy of the source whence it springs. My interest in the company is directly opposed to any such action. I am deeply grieved at the present position of affairs, and have advised my friends not to sell their shares at the present low price, in the somewhat vain hope that the pressure from without would have caused the Directors to have exerted themselves to remedy the evils under which the company is now suffering. Vain hope, indeed!

If you, gentlemen, would know the reason why the public confidence in your property has been shaken, it is not to what A, B, or C may say, but to the actual facts that you must look, as also to the blind management, to use the mildest term, on the part of the executive.

In the accounts furnished to the shareholders in September, 1865, the balance of assets on the general account was £14,162; and if to this be added the new capital (£20,000) then in course of collection, £34,162 would be the full balance of assets of the company. In the accounts presented to the meeting in September last, and made up to the 6th July, 1866, you will find the balance of assets at £25,015, showing a falling off in the assets of the company of no less than £9147; and I have no hesitation in saying that the next balance-sheet, if fairly made up, will show a further considerable diminution.

In the face of this great drop in the assets for the twelve months ending the 6th of July last, and with the returns of July month before then, in which the mine only made about £1000 profit, the Directors declared a dividend of £7500 for the three months; and again, in December, another dividend of £7500 for July, August, and September, although they must have known that the mine would net but little over £5000 for those three months. The next accounts you will be favoured with will be made up to the 4th January, and by this time some of you wonder, with me, whether the Directors will make another three-monthly dividend of £7500, or 10s. per share; and your wonder will be still more increased when I tell you that your mine, from the returns for the month of January, would realise for that month the magnificent net profit of about £500.

There is an old saying that "people who live in glass houses should not throw stones," and as Mr. Dumbell and his co-directors have chosen to measure my corn with their bushel, to impute to me unfair motives and a desire to mislead the shareholders with false statements, as a shareholder, on my own behalf and that of my brother shareholders, I beg to ask them a few questions.

Why, in the commencement of 1864, after many years of service, was the actual management of the mine taken from Capt. Rowe, and placed in the hands of Capt. John Kitto, who first taught us the real value of our property?

Why, in October, 1865, was Capt. Rowe reinstated in full power, since which the profits of the mine have gradually declined?

In a letter to the Directors, dated 9th October, 1865, Captain John Kitto demanded an enquiry into a report said to have emanated from the Rev. Mr. Bellamy, chaplain of Laxey, respecting the misappropriation of the money for a cargo of ore. Why was this matter not looked into, and, if correct, the guilt brought home to the proper parties?

Why was the large bore-rod, forwarded by Capt. John Kitto, in his letter to the Directors of the 11th October, 1865, that the large bore-rod and ladders used at an iron mine near Whitehaven were made at and carried from the Laxey Mines, not investigated, especially when Capt. John Kitto offered to come forward to prove his assertion? Is it a fact that this iron mine is the joint property of Capt. Rowe and one of the Marx board of Directors? Would this latter circumstance account for the non-enquiry?

My budget is nothing like exhausted; but I think there is enough in the above to cause you to make further enquiries into the management of your property. For four years I held the position of London secretary to this company, and had the other officials and directors served it as faithfully, and kept its best interests as much at heart, the value of Laxey Mines could never have been called in question. During that four years I received the magnificent salary of £1000 per annum, for which I found the company offices and clerks, paying to one of them, your present secretary, whose sole duty was the custody of the transfer books, more than I received from the company. The actual money cost of the company to me was nearly £2000 per annum, so that it may be said to be fairly paid for my services. I have a letter from a shareholder in the Isle of Man, and he says, "There is only one opinion here—viz., that if the present management is continued in Great Laxey the ship will some day founder on a sandbank." Let the unhappy experience of the misfortunes of 1866 make you alive to your own interests. I feel an interest in your company, far above any pecuniary benefit to be derived from it. I have never "beared," nor will I "bear," its shares, so as to make money by its fall, and nobody will rejoice more than I shall to see Great Laxey once again stand as high in public estimation as it did while under my care.

THOS. THOMPSON,  
 12, Old Jewry Chambers, February 14, 1867.

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**Notices to Correspondents.**

\* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

**GREAT NORTH LAXEY.**—We have received numerous communications referring to the affairs of this company—some of a very personal nature, while others would provoke an endless and useless controversy. As Mr. Richard Sherwood intends to be present at the meeting, we shall then have to record his views and statements in reporting the proceedings, so that further publication of his opinions is not now requisite.

**PRIZES FOR COAL-CUTTING MACHINERY.**—"R. C." (Lidgo).—The particulars asked for as to the conditions, &c., to which competitors will have to submit are published in another column of this day's Journal. We should think steam will not be admissible for working, as no machine would be practically useful which would interfere with the ventilation; it is probably to save the trouble of testing machines, which could not under any circumstance be adopted in a mine, that the Committee announce their opinion to be favourable to air as a motive-power.

**SAFETY-LAMPS.**—"F. H. C." (Newcastle).—The lamp invented by Mr. Hall, of Birmingham, some years since, was intended to be self-extinguishing, but there was no difficulty whatever in opening the lamp whilst it was still alight. That of Messrs. Hall and Cooke is, probably, an improvement, but not having seen or tested the lamp, it is impossible to say whether it is so or not. We do not know what pits the lamps are used in, but the information could, no doubt, be obtained from the inventors.

**COAL IN FOREIGN COUNTRIES.**—"F. J." (Newcastle).—The report referred to is contained, as one of a series by Her Majesty's Secretaries of Embassy and Legation, in a small "Blue Book" just issued. The price is 9d., postage 2d., and it will be forwarded from the *Mining Journal* office on receipt of 11 stamps.

**PNEUMATIC MINE CAGES.**—Some time since a cage was proposed, which I may describe as the pneumatic despatch tube, placed vertically in the shaft. The inventors were, I think, Messrs. Allison and Shaw, and it was proposed to blow the cage up the shaft by forcing in air beneath it. Now, unless the cage fit as tight in the tube as the pellet of a popgun, I do not see how it could be raised at all; and if it were made to fit tightly (leaving the friction out of the question), I think there would be some practical difficulty in raising the cage, owing to the enormous and constantly increasing space in which the air would have to be compressed. Would not the compression have to be effected upon every cubic foot in the shaft, or would it be simply necessary to compress the lower part of the column? Thus, in a shaft, would the power required to force up the cage be the same when the load started from the bottom as when it got (say) 50 fms. up?—T. R. J.

SIR,—I have a piece of land from which I am getting clay and stone, in a coal district, and within one and a half mile of which there are about 12 pits now in full work. As I am desirous of ascertaining whether there is a probability of finding coals under my land, I enclose you the measures, and shall be obliged by the opinion of some correspondent thereon.—AN OLD SUBSCRIBER.

Measures.	Ft. In.
Soil .....	1 0
Red sandstone sand, loose .....	3 0
Red clay .....	4 6
White freestone, soft .....	3 0
Red marl .....	3 0
Red sandstone sand .....	1 6
Fine white freestone rock .....	11 0
Red marl .....	2 0
Second freestone rock, very porous and shell .....	2 0
There are veins of white clay, about 2 in. thick, between each of the above.	

**CWM ERFIN MINE.**—An error has occurred in the Journal of the last two sales of ore from this mine, namely Jan. 14, and Feb. 11—the name of Cwm-y-twith having been inserted instead of Cwm Erfin. The ore sold on those dates has been:—

	Tons.	Purchasers.
Jan. 14 .....	30 .....	£15 18 0 .... Panther and Co.
Feb. 11 .....	62 .....	16 1 0 .... Sims, Williams, Nevill, & Co.
Feb. 11 .....	39 .....	16 3 6 .... Walker, Parker, and Co.

—JOHN WILLIAMS.

**SHARE DEALING.**—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

**THE MINING JOURNAL,**  
**Railway and Commercial Gazette.**

LONDON, FEBRUARY 23, 1867.

Public attention is at present directed not only to the novel and important controversy which has arisen between Lord REDESDALE, the noble Chairman of Committees in the House of Peers, and Mr. R. S. FRANCE, an eminent railway contractor, but also to the peculiar aspect which that controversy has assumed. The noble baron, in the first instance, availing himself of his high position, on the evening of Friday, Feb. 8, asserted in his place in Parliament that the course pursued by Mr. FRANCE in communicating his allegations to the public through the medium of a pamphlet "involved a breach of privilege," and this assertion was accompanied by a threat, that unless "he received a complete retraction of all the charges, he would think it his duty to ask their lordships to order Mr. FRANCE to the bar of their House." When the noble lord again, on the Monday following, returned to the subject, the Marquis of CLANRICARDE, with a due regard not only to the honour of Parliament, but also to the freedom of the subject, suggested that before Mr. FRANCE should be summoned to the bar, and placed at least in peril of committal, it was not only desirable but essentially just that the papers should be printed, in order that their lordships might know what the statements were which Mr. FRANCE was thus summarily called upon to retract, and for which he was required to apologise. To this proposition Lord REDESDALE peremptorily refused to accede, and on the following morning he not only received the very reverse of any retraction or apology, but Mr. FRANCE, on the evening of that day, appearing in person at the bar, when handing in the papers, boldly avowed his determination to abide by the statements he had deliberately made. It is difficult to conceive a more undignified course than that then adopted by Lord REDESDALE, who felt himself compelled to propose to their lordships, not the committal of Mr. FRANCE, but the appointment of a Select Committee of their House to enquire into his own conduct. It is the right of every subject of this realm to be tried by his own peers, and Lord REDESDALE has thus selected his own tribunal, composed exclusively of members of his own order. The publication of the papers delivered in by Mr. FRANCE, to which every member of the community can have access, will now put their lordships, as well as the public, in full possession of the details, but having every reliance on the independence of the British peerage, we for the present, for obvious reasons, forbear to enter into the merits of the question, feeling satisfied that it will receive an impartial adjudication.

Probably the noble baron, upon reflection, discovered that when he entered into a correspondence, and even rushed into print, in the hope of obtaining the approbation of the public, he had laid himself open to all legitimate criticism. It does not seem to us, considering the liberty which the press in this country enjoys, that Mr. FRANCE, in entering the lists with his titled competitor, has exceeded the limits of fair discussion, and we conceive that Lord REDESDALE acted wisely in retreating from the false, or at least questionable, position he at first assumed of appealing to a prerogative, the arbitrary exercise of which is unsuited to our times, and would appear to be fast falling into disuse. While we await the decision of the Select Committee on the peculiar merits of the case at issue, we must be permitted to question the right which, in his correspondence, Lord REDESDALE assumes to insert in a private bill, after it has passed a Committee of his House, any clause which either his fancy or his feelings may dictate. We readily admit that in accepting and exercising his office of Chairman of Committees the noble Baron did not abdicate his right to vote as an individual peer, but we venture to assert that the duties which his office imposes upon him are merely ministerial, and neither judicial nor legislative. His proper functions are to see that the Standing Orders of the House are complied with before the bill is submitted for approval or rejection to a Select Committee, and that there is no departure from any essential requirement. When the House of which he is a member delegates its authority to that Committee, the powers of the noble baron are superseded, and at an end. His official duties are thus defined by Mr. MAY, in the last edition of his work on "The Law of Parliament," p. 708:—"To examine all private bills, whether opposed or unopposed, and to call the attention of the House, and also, if he thinks fit, of the Chairman of the Committee on every opposed private bill, to all points which may appear to him to require it, and at any period after the bill has been referred to a Committee he is at liberty to report any



special circumstances." The Peers, to whom Lord REDESDALE has now appealed, will naturally enquire whether that noble lord, before he caused the insertion of the objectionable clause which forms the subject of the present contention, submitted either to the Committee or to the House any report of the special circumstances as a justification for its introduction? If no such report be produced we must anticipate a result favourable to Mr. FRANCE, for we contend that Lord REDESDALE has no more authority to insert clauses than he has to dispense with clauses after a bill has passed a Committee, a power which we believe he has not yet ventured to assert. The right, however, which he claims, and which in the present instance he has exercised, has developed itself by degrees; and if the line which bounds his authority should prove to be too loosely drawn, we trust that the present Committee will not hesitate to define and lay down its proper limits.

The general policy of the noble baron, as well as the Standing Orders, of which he is the avowed author, have laid him open to the imputation of favouring the great railway companies at the expense of the minor ones, and of sacrificing competition to monopoly. Any departure from the generally approved principles of free trade are opposed to our modern notions of social economy, and we, at least, cannot conceive any sound reason why railway enterprise should form an exception. In the extraordinary powers which Parliament has considered itself authorised to confer for the formation of railways, the exclusive interests of any peculiar companies were never contemplated; the code of laws that governs them was designed to promote the employment of labour and capital, and to advance the interests of the public in the all-important relations of trade, travelling, and traffic. It seems to be conceded, and cannot, we believe, be denied, that the clause which Lord REDESDALE, in his appellat character, introduced into the Mold and Denbigh Junction Bill after it had passed the Committee—a Bill in which Mr. FRANCE was so deeply interested—has proved highly detrimental to the interests of that minor line, by placing it at the mercy of its gigantic antagonist—the London and North-Western Railway Company. If, indeed, the facts alleged be established, it is impossible to doubt that the latter company succeeded in obtaining the advantages they derived from the introduction of that clause by a breach of faith; and under circumstances which a Court of Equity might not hesitate to over-rule.

We are altogether opposed to any measures or system of legislation which may ultimately, either directly or indirectly, lead to the complete absorption of the minor lines by the great companies. In resisting the policy of which the noble baron is the avowed and apparently determined patron, we challenge him to point out a single line of railway, no matter whether it has been a contractor's line or not, no matter from what source the capital by which it was made was derived, and no matter what may be its present financial difficulties, from which vast advantages have not accrued to the districts through which it passes, and to the inhabitants as well as to the public whom it accommodates.

The father of Lord REDESDALE once filled with distinguished reputation the high office of Lord Chancellor of Ireland, and he has left behind him an ever-memorable declaration, that he found in that country "one law for the rich and another for the poor." We can scarcely imagine that the successor to the name which he ennobled, contemplated the revival of such a precept in respect of the railways in that island, but it is remarkable that there is not, we believe, a single Irish railway bill this session before Parliament except those that are promoted by the great existing companies. This partial suspension is to be deplored, particularly at a time when much discontent prevails among the people, and the Government are anxious to encourage public works and the influx of capital into the country. Amounting, as it does, to a national evil, it is traceable, at least in a great measure, to the recent Standing Orders of last session, of which Lord REDESDALE was the promoter. Any regulations must be essentially wrong which draw lines of demarcation, and which, while locking up—wholly unproductive—any portion of the capital of minor companies, enables the great establishments, without making any deposits, to avail themselves of their accumulated funds to crush all competitive enterprise.

The noble Baron has necessarily studied the constitutional history of this country, and has, no doubt, learned that monopolies were always odious in the eye of our law. It was early felt, even in the days of our most arbitrary sovereigns, that a license conferring an exclusive right to carry on a particular line of trade was beyond the just bounds of Royal prerogative. The discontents which the wisdom of ELIZABETH had appeased were, in the words of Lord MACAULAY, "revived by the dishonest and pusillanimous policy which her successor called kingcraft." He, in his turn, was forced to succumb to the pressure of public opinion, for in the latter reign Lord COKE, our great legal oracle, pronounced monopoly to be in effect an offence at common law; and by an Act then passed—21 JAMES I., c. 3—it was declared to be "altogether contrary to the laws of this realm." We trust that the result of the enquiry to which the manly conduct of Mr. FRANCE has given rise, will be to diminish the difficulties which at present cripple young and struggling railway enterprises, and afford further facilities for their more general development.

In the House of Lords, on Thursday, on the motion of Lord COLVILLE, of Culross, the following noble lords were appointed the Select Committee to investigate the charges made by Mr. FRANCE in his pamphlet (which is advertised in another part of this day's Journal) respecting the noble lord the Chairman of Committees:—the Lord Steward (Duke of MARLBOROUGH), Earl SPENCER, Earl CATHART, Lord SOMERHILL (Marquis of CLANRICARDE), and Lord TAUNTON.

#### THE NORTH OF ENGLAND IRON TRADE.

The Iron Trade of the Middlesbrough district has not undergone any improvement. This refers more particularly to the demand for pig-iron. It is now very considerably under the supply, and the consequence is that stocks are still increasing rapidly. The stock in store only increased slowly some weeks back, but more recently a large quantity of iron has gone in, and the amount now stands at above 60,000 tons. Considering that the stocks in makers' hands are also heavy, probably one-fourth higher than the warrant stores, it is clear that there is over-production in the district. This is being clearly forced upon members of the trade, and already they are discussing the matter with a view to make some change which shall bring affairs to a proper level. We understand that several makers, especially those whose furnaces are of the old and smaller construction, are reducing their orders for delivery as rapidly as they can, and are making arrangements for blowing-out one or more of their furnaces. The circumstances of the various works are, however, exceedingly diverse; some have exceptionally good contracts for coke, which have been entered into for long periods, and which are not yet expired. Some get their own ironstone, under favourable royalties; and, having their furnaces situated within easy access of the mines, and not having to convey their minerals over any public railway, they can produce pig-iron at a profit when other firms with improved plant are unable to do so. Some makers also have contracts on hand at much higher rates than those which now prevail, and consequently they are not disposed to blow-out their furnaces. Still the subject forms a prominent matter for discussion at the meetings of the ironmasters; and, doubtless, if no marked improvement takes place in the course of a few weeks, a large reduction of make will be made. At present an attempt is being made to obtain a rebate off the railway dues and off the mineral contracts at high figures, and there seems reason to expect that some temporary accommodation of this nature will be allowed, in order, if possible, to enable the ironmasters to keep in the furnaces. It is well known that if blast-furnaces are once blown out they are likely to remain out for a considerable period. A number of the smaller stacks were put out when the men struck, last July, and have not since been re-lighted. On the banks of the Tees there are no less than ten of these furnaces now, which is more than 10 per cent. of the whole number in the neighbourhood. This must have materially affected the consumption of coke in the district, and has brought down prices of the ordinary varieties of coke. Supposing another batch were extinguished, a number of coke ovens would have to be laid off, and the collieries would be put on short time, while the railway company would lose a large sum in the shape of dues. In this respect the North of England district differs from any other iron-producing centre. The coal, limestone, and ironstone have, as a rule,

to be all conveyed to the furnaces by railway, and the greater part of the pig-iron produced is also sent to considerable distances inland, so that altogether it may be safely asserted that on the average quite one-fifth of the selling price of pig-iron is absorbed in the railway dues alone. The concessions which the makers are now seeking would enable them to send the pig-iron into markets which are at present closed to them. The demand for manufactured iron is, perhaps, somewhat better, but no improvement in prices has taken place. There is at present very severe competition for all orders which are in the market, consequently prices continue low. The plate manufacturers complain that the Liverpool market is completely closed against them, the railway dues from this locality being so heavy compared with those from North Staffordshire. The Liverpool ship-builders are able to obtain plates now at 87.5s. per ton delivered; and at this rate, for general orders, North of England houses would not have 77.10s. clear at the works. In rails the improvement has been slightly more marked, as a few orders have been placed during the last ten days, and prices are not of such an unremunerative character as was the case a month ago. They are still too low, however, to allow of any profit being made, even under the most favourable circumstances. The merchant mills are badly supplied with orders, and the majority are either working half-time, or are laid off till times get better. It is expected that the manufacturers will be compelled to make another reduction in wages before the trade can be attracted to this district. So much was driven away during the late strike that it will be a long time before it will be brought back again.

#### PRIZES FOR COAL-CUTTING MACHINERY.

The committee and referees, or judges of machines, appointed to award the prizes offered by the South Lancashire and Cheshire Coal Association for the best coal-cutting machine, consists of Messrs. J. Knowles, President of the Association; Josiah Evans, G. Gilroy, G. C. Greenwell, A. Hewlett, John Holland, Thos. Knowles, John Lancaster, James Radley, and Fereday Smith; and, as great interest attaches to the subject, we subjoin the regulations issued by the committee for the guidance of competitors:—

1. That compressed air is the proper motive-power for working coal-cutting machinery. (Machinery for compressing air is already erected at several collieries in the neighbourhood of Wigan, and will be placed at the service of inventors, on application to the undersigned.)
2. Inventors taking a prize must be bound by the following condition:—That no annual payment, or tonnage royalty, as patent right, shall be charged to any present or future member of the above association, but that such member shall pay a patent right on the purchase of each machine, to include the working thereof, which patent right shall in no case exceed 50 per cent. of the cost of the machine.
3. The committee reserve power not to award any premium unless they are satisfied with the performance and capabilities of the machine, or machines, submitted for trial.
4. Machines furnished for trial, in compliance with the advertisement, by Nov. 1, 1867, will be tried by the committee, who will make their award thereupon in or before the month of May, 1868.
5. The committee direct the attention of competitors to the following requirements to which the machine must be adapted:—Thickness of seams, from 2 to 9 feet; dip or inclination, from horizontal to an angle of 20°; as to weight of machine, lightness and easiness of movement desirable; maximum size of tub or wagon used in the mines, 3' 6" x 3' 0" and 3 feet in height; gauge of road, from 1' 6" to 2' 3".

#### RATING OF MINES BILL.

On Tuesday Mr. PERCY WYNHAM obtained leave to introduce a Bill to "assess mines, woodlands, and plantations to the local rates," and thereby to put an end to certain anomalies in the law which now existed. The House was already in the possession of ample information on the subject. In 1856 a Committee was appointed, which sat for two sessions, and made a full report, stating that they saw no reason when coal mines were rated for the poor other mines should be exempt. When the question was brought before the House last session, Mr. Villiers, the then President of the Board of Trade, opposed legislation, because the question of liability was then before the Superior Courts. The question had been decided in favour of the exemption, and, therefore, this Bill became necessary. The exemption of mines from rating was nothing more than a protective exemption of this description of property, and in Cornwall it had had the effect of keeping capital in a stagnant and unproductive state. In other parts of England, where vast mining wealth had been discovered, the exemption was in favour of the richest property in the country. The right principle would be to extend the principle of rating coal mines to other mines. As to woods and plantations, he proposed they should be rated in the value of the land on which they stood.

Mr. CAVENDISH BENTINCK seconded the motion. Mr. GAVENHARDY, on the part of the Government, would offer no opposition to the introduction of the Bill, but the hon. member laboured under a mistake if he thought that the law on the subject was finally settled, as there were cases in the Exchequer Chamber to determine whether the dicta of the judges up to this time were to be upheld.

Mr. BACWELL said the Government was in error in supposing that there was any general agreement in the evidence taken in 1857 that the system of assessing coal mines was based on a fair principle; and unless that portion of the Bill was placed on a sounder principle he must oppose it. Mr. COLVILLE would not oppose the introduction of the Bill; but, if it proceeded on the same basis as that of the hon. member for Shoreham, he should hereafter offer it the most strenuous opposition. The hon. member wished to rate mineral property on its annual income, but that was perfectly impossible, for a mine was simply a terminable annuity. In Derbyshire they had for years past paid rates, not only for highways, but for the poor, and he believed they were virtuous enough to pay church rates; but they assessed the lords' dues, not the tenant. He thought the mining interest had been unjustly singled out for assessment. Why were ships not to contribute to local rates? There were also thousands of acres in Derbyshire let for sporting purposes, with many of the attendant evils of pauperism. Why were they not assessed to local rates?

Mr. PEASE thought mines should be rated, because they threw a large population into a district which was specially liable to come on the poor rate, but they ought to be rated on their own basis. He hoped the Bill, if pressed forward, would be made more like that of the hon. member for Shoreham. Mr. P. WYNHAM, in reply, said he was quite aware that after a certain number of years the value of the mines would come to an end, but he maintained that that was a loss to the parish as well as to the individual, and the interest of the parish and the interest of the landlord ought to stand and fall together. At the same time, if exhaustion of profits were to be allowed for, he would rather that the bill passed with that provision than that it should not pass at all, but he did not wish to draw the clause himself.

The bill was brought in and read a first time. It was printed yesterday, and its provisions are as follow:—

Whereas it has been held by the courts of law that mines other than coal mines are not liable to be rated to local rates. And whereas woods and plantations are not liable to be rated, while saleable underwoods are rateable. And whereas it is expedient that such distinctions and exceptions should cease. Be it enacted that:—

- 1.—From and after the 1st of October next, mines and minerals of every description in England and Wales shall be liable to be rated to local rates in the same manner and to the same extent as far as circumstances will admit, in which and to which coal mines are liable to be rated to local rates; and all woods and plantations shall be liable to be rated to local rates upon the rateable value of the land on which they are grown.
- 2.—Provided always, that where any mine shall, at the passing of this Act, be held upon a lease reserving rent in money, royalty, toll, or due, other than in kind, the occupier of the mine which by reason of this statute shall become rateable shall be entitled to deduct from the rent, royalty, toll, or due payable under such lease one moiety of the sum charged upon him towards the said rate in respect of such mine before the day upon which such rents shall have accrued, and the lessor or person otherwise entitled to such rent, royalty, toll, or due shall allow such deduction in part payment thereof.
- 3.—Provided also, that where, at the passing of this Act, any lord or owner of a mine is assessed to local rates in respect of such mine, nothing in this Act shall be held to disturb such assessment during the continuance of existing estates.

PETROLEUM IN NEW SOUTH WALES.—No more oil-works have been started since last account, and there is not any likelihood of any more being put to work at present, as there have been no fresh deposits found of late, and there is not much inclination to speculate. The Hartley Paraffin Oil-works and the Mackenzie and Brother's Kerosene Works are alone manufacturing oil in the Hartley district at present. The former company are still making large quantities, and selling it at Sydney and other places. The greatly talked of New Zealand oil-wells are now unheard of. Retorts, stills, &c., are now on their way to the Mackenzies' Mine, near Bowenfels, for manufacturing about 1000 to 1200 gallons of refined oil per week, and the proprietors expect to get their oil in market by the end of March.

A FEW RAILWAY FACTS.—In the second half of 1866 the mineral traffic of the Midland Railway Company yielded an increased revenue of 10,689*l.*, as compared with the corresponding six months of 1865. This company has now 4,000,000*l.* of capital engaged in works which are not yet reproductive. During the past half-year 11 new locomotives and a considerable number of fresh carriages and trucks were placed upon the system, the whole cost being charged to revenue. The quantity of goods and minerals carried over the London and North-Western Railway in the last six months of 1866 was 8,091,748 tons, as compared with 7,569,232 tons in the corresponding period of 1865. The quantity of coal and coke carried over the Lancashire and Yorkshire Railway in the second half of 1866 was

1,650,176 tons; the average receipt from each ton was 1*s.* 4*d.* The Lancashire and Yorkshire Company expended last year 445*l.* per mile in maintaining its permanent way. The latest corresponding return with regard to the Great Northern shows an expenditure of 430*l.* per mile; on the Midland, 290*l.* per mile; on the North-Eastern, 240*l.* per mile; on the London and North-Western, 350*l.* per mile; and on the Manchester, Sheffield, and Lincolnshire, 300*l.* per mile.

#### FOREIGN MINING AND METALLURGY.

The Belgian collieries are passing at present through a mixed period, which is not the dead season, and which, nevertheless, somewhat resembles it. Business has not the same activity that it presented during the winter, domestic wants being curtailed by the mildness of the season. Extractors are energetically opposing a reduction of prices in connection with long-termed contracts, as they hope to witness during the season which is commencing the prices of the past year; but, nevertheless, they are not sufficiently certain as to the stability of the price of coal not to be induced to engage before hand a part at least of their production. For the present prices remain the same, but opinion appears to tend in favour of a fall. Freight from Charleroi to Paris stands at 7*s.* per ton. The state of the Belgian iron markets remains much the same. The strike, which made such a noise a week or two since, appears to be stopped, the workmen having accepted the reduction insisted on in wages, and having returned to their work. The quantity of iron minerals imported into Belgium in 1866 represented 307,000 tons, as compared with 340,000 tons in 1865, showing a falling off last year of 33,000 tons. The exports of minerals from Belgium amounted in 1866 to 157,000 tons, showing a decline of 13,700 tons in the exports of 1865. The imports of rough pig into Belgium have increased in a remarkable manner during the last two years. Thus while they amounted to only 9500 tons in 1864, they rose to 24,600 tons in 1865, and last year they further increased to 35,500 tons. England furnished the greater part of the rough pig imported. The exports of pig from Belgium have experienced a contrary movement. Thus while they were 26,000 tons in 1864, they were only 10,700 tons in 1865, and 15,300 tons in 1866. England entered into the total exports for 5900 tons in 1864, and France for 18,700 tons. In 1865, England received only 83 tons of Belgian pig, and France only 8100 tons; and in 1866 England received only 292 tons, and France 10,900 tons. These figures have induced Belgian ironmasters to attribute some of their recent difficulties to English competition. The exports of rails from Belgium presented a notable falling off last year. In 1864, 84,400 tons of rails were exported, of which 2000 tons went to Sweden, 16,000 tons to the Low Countries, 3000 tons to England, 1700 tons to France, 8600 tons to Portugal, 34,000 tons to Spain, 5000 tons to Italy, and 7500 tons to the United States. In 1865 the total export of rails was only 65,000 tons, of which 32,500 tons went to Russia, 3000 tons to the Zollverein, 13,000 tons to the Low Countries, 6500 tons to Italy, 1700 tons to England, 800 tons to France, 1700 tons to Spain, and 1400 tons to the United States. The exports of plates from Belgium also declined last year, having amounted to only 16,800 tons, while in 1864 they were 18,000 tons. It may be remarked, however, that the exports to France increased last year, as compared with 1864, while a contrary state of things prevailed as regards the exports to all other countries. Altogether, the exports of beaten, rolled, &c., iron from Belgium amounted last year to 149,000 tons, while in 1864 they were 162,700 tons, showing a decline of 13,700 tons in the exports of 1866. France sustains the largest share in these exports (38,500 tons), while the Low Countries came next with 35,400 tons, and then Russia with 35,300 tons. Meetings are announced as follows:—Belgian General Railway Plant Company, Feb. 21, at Molenbeek; Company for Promoting the National Industry of Belgium, Feb. 26, at Brussels; Andennes Metallurgical Company, Feb. 28, at Andenne; Quaregnon United Collieries Company, Feb. 28, at Quaregnon; Bonne-Fin Collieries Company, March 4, at Liège; and Thy-le-Château Blast Furnaces Company, March 9, at Charleroi.

The French concern known as the Société Anonyme des Chantiers et Ateliers de l'Océan has no dividend for its shareholders for the year 1866, the exercise having resulted in a rather serious loss. Some orders have slightly revived the St. Dizier market, but they are not very numerous. Offers have been made at a reduction, which has not been agreed to by holders, who hold firmly, and appear to consider that they have already made sufficient concessions. Rolled iron from coke-made pig are quoted at 7*l.* 12*s.* per ton; ditto, from mixed pig, at 8*l.* 8*s.* per ton; and ditto, from charcoal-made pig, at 8*l.* 16*s.* per ton, with a scale of 4*s.* to 8*s.* per ton between the classifications. In the northern group the state of affairs is the same, and prices have not varied; merchants' iron remains quoted at 7*l.* 16*s.* per ton for first-class No. 2. A reduction of 10 per cent. in their wages has been accepted by the workmen in the Maubeuge group. Meetings are announced as follows:—Montaud St. Etienne Mines Company, Feb. 23, at St. Etienne; Crenost Works (Schneider and Co.), Feb. 27, at Paris; Rolhe Collieries Company, Feb. 28, at Paris; Haute-Loire Metallurgical Mines Company, Feb. 28, at Yssingeaux; Paris Coal Company, March 2, at Paris; Bank of Mines, March 16, at Paris; and Denain and Anzin Blast-Furnaces and Forges Company, April 26, at Paris. French railway traffic has made a bad beginning this year, partly owing to the severity of the weather, and partly owing to the dullness of trade.

The revival noticed in Chilean copper at Havre has given place to feebleness. The sales made have been inconsiderable, and purchasers have been less numerous; 55 tons of disposable Chilean in bars have changed hands at 78*l.* per ton, Paris conditions. At the last dates the market remained quiet and heavy. There has been little animation on the Paris market. English has been quoted by continuation at 82*l.*, Chilean at 77*l.*, and Cornish mineral at 81*l.* At Marseilles affairs are almost still, except as regards small lots. Toka has made 82*l.*; Spanish, 78*l.*; refined Chilean and Peruvian, 88*l.*; ditto rolled red for sheathing, 92*l.*; ditto yellow for shea ling, 88*l.* per ton. On the majority of the German markets copper has undergone only very unimportant variations. Tin continues to display favourable tendencies on the Dutch markets, although the demand has been maintained within rather narrow limits. Banca has been dealt in at Amsterdam and Rotterdam at 52½*l.* to 53*l.*; on these terms about 4000 blocks have been run off, and at 53*l.* per cwt. still presented themselves. Biliton tin has been quoted at 52*l.* 5*s.* per cwt. Banca has been dealt in at Amsterdam and Rotterdam at 52½*l.* to 53*l.*; on these terms about 4000 blocks have been run off, and at 53*l.* per cwt. still presented themselves. Biliton tin has been quoted at 52*l.* 5*s.* per cwt. Banca has been dealt in at Amsterdam and Rotterdam at 52½*l.* to 53*l.*; on these terms about 4000 blocks have been run off, and at 53*l.* per cwt. still presented themselves. Biliton tin has been quoted at 52*l.* 5*s.* per cwt. Banca has been dealt in at Amsterdam and Rotterdam at 52½*l.* to 53*l.*; on these terms about 4000 blocks have been run off, and at 53*l.* per cwt. still presented themselves. Biliton tin has been quoted at 52*l.* 5*s.* per cwt. 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ters should be made responsible for the weight of their cargoes on delivery, and this would prevent the sale of coal at sea for the future. At a meeting of the Royal Society in Edinburgh, on Monday, Sir David Brewster in the chair, Prof. Sir J. Y. Simpson performed an experiment to show how, by the agency of mineral oil, such as paraffin, heat could be generated in an extremely short space of time, and with a very considerable saving of fuel—an experiment which, if carried into practical effect in the working of steam-engines, would be of immense service in the interests of commerce and navigation. The Gipsland Steam Navigation Company have this week added to their fleet an iron paddle steamer, intended for their trade between Melbourne, Port Albert, Barnsdale, and up the Lake to Sale. Lately this company purchased the Murray, which was also built by the same firm, Messrs. Wingate, Whiteinch, near Glasgow.

It is said that the stamp duty on the personal estate of the late Mr. Alexander Cunningham, of Craigends—a partner in the firm of Merry and Cunningham—is 7500*l.*, which covers the enormous amount of half a million. A fire broke out in the Drumpeller Coal Company's Blair Pit, near Coatbridge, on Wednesday, and continues burning. It appears that two men came suddenly upon a "hitch," in driving a level, and liberated the gas, which ignited at the lamps. Fortunately, all in the pit escaped without injury, and in the evening, when all efforts to extinguish the fire had failed, a wall was built across the level, to isolate the district from the other workings.

#### REPORT FROM NORTHUMBERLAND AND DURHAM.

FEB. 21.—The period when the annual bindings of the coalminers in this district takes place is now rapidly approaching; indeed, some of the bindings are to be proceeded with on Saturday next. The custom of yearly engagements has prevailed in this coal field from the earliest times, and no doubt it had its origin in the yearly engagements of agricultural labourers, as the first miners would be derived from the families of the cultivators of the soil. The custom, however, so far as we are aware, does not prevail in any other locality of engaging miners for a whole year. It has, however, existed from an early time here. However, when the great strike took place throughout the district, in the year 1844, these agreements were interrupted, and a monthly one was substituted, but this, during the last few years, has been gradually dying out, the old yearly bind taking its place; indeed, a large number of the collieries in Durham are under this agreement, and have been for some time. But it is remarkable that the monthly bind continues to hold its ground in the collieries of Northumberland, and there the men appear to resist the introduction of the yearly bind, although the masters have long been anxious to return to the old system, which, after ample trials, certainly proves to be the best for all parties.

The objections to the monthly bind are that the system merely encourages a wandering, unsettled disposition among the men, and thus a heavy expense is entailed upon the masters in removing them from place to place, and no benefit is derived by the men, but the reverse, as they always lose time in changing. With a yearly agreement the men get a house and coal, and generally a piece of garden ground, and they are certainly all the better for remaining one year, or, as many of them do, several years at one colliery; indeed, many of them never remove at all, but spend their whole lives at one concern; and it is certainly absurd to suppose that the value of labour can fluctuate much from month to month; the probable value can always be determined pretty nearly for a year, so that, on the whole, it is evident that the yearly agreement is the best. This agreement will, we believe, be nearly universal throughout the works in the county of Durham very shortly, but whether the same system may yet be introduced into Northumberland appears to be doubtful, as the men appear to have set their minds against it. As to the terms, it is not expected that any changes of importance will take place in this respect.

On Monday the first sod was turned for a new colliery, under Mr. Holmes's Fiddon Hill Estate. The winding and pumping-engines are in course of erection, by Mr. Smith, of Chester-le-Street, and the colliery works will be carried out by Mr. Morgan Roison, who has for many years been practically connected with the neighbouring collieries.

Mr. G. Robinson, late overman at Felling Colliery, has been presented with a gold watch, bearing the following inscription:—"Presented to Mr. George Robinson as a token of respect from his friends, on his leaving the Felling, as a mark of esteem and regard for him as a master and neighbour. Feb. 16, 1867." Mr. George Pearson, overman, made the presentation. A gold ring was also presented to Mrs. Robinson.

#### REPORT FROM DERBYSHIRE AND YORKSHIRE.

FEB. 21.—The strike at the Staveley Collieries, which has lasted for upwards of five months, is now virtually over, upwards of 2300 men in connection with the mineral department of the company having become Non-Unionists. The strike may be said to have all but terminated more than a fortnight ago, when three of the local delegates applied to be allowed to return to their work, and were refused. Business has now resumed something of its old proportions. The concern is one of the largest and most complete in the kingdom, and, in addition to a large staff of engineers, viewers, and surveyors, it employs no less than seven chief overmen for their mines, and more than 50 deputies, the whole being under the management of Mr. C. Markham. There are six large collieries and two ironstone mines, besides the vast puddling-furnaces, rail and plate-mills, casting-shops, &c., the company having a high reputation for iron of all sorts, their gas and water-pipes in particular being in good request. There are generally between 4000 and 5000 persons employed, but those actually dependent on the works for support will number close upon 15,000. These particulars may not be uninteresting, as the dispute will form no unimportant part in the history of trade disputes, seeing that it is the first instance in which a body threw overboard their leaders, and secured their individual liberty, and the right to sell their labour in whatever market they pleased. At Cinder Hill, and other places where disputes have recently occurred, there is every prospect of their giving way. At the Devonshire Silkstone Works all the top work has been completed, as well as the cages, pulleys, rollers, &c., and the new pumping-engine is fully at work. They are now drawing about a ton at the time, and the quantity of coal raised daily will be very large indeed. On Thursday there was a half-yearly meeting of the shareholders at Bury, when several of them were in favour of having a dividend declared. This was successfully opposed by the directors, on the ground that such a dividend scarcely be adopted before they had completed their works and commenced drawing coal. At Sheepbridge, business is by no means active, and two of the furnaces are out.

In Yorkshire there is not much alteration in the state of affairs, the Sheffield trades showing very little improvement. Several of the houses in the heavy steel and railway plant business are, however, favourably off for orders, whilst makers of light goods are only doing a moderate trade. Several of the shippers of steel to America are busy just now, and will be so up to the end of March, in anticipation of the new tariff, which, it is to be feared, will pass into law, and so far as English-made steel and other goods are concerned, entirely close that hitherto important market, where several of our first firms have branch establishments. There is continued activity at the Messel works at Peckington, where there is a heavy output of the plain and manufactured material turned out weekly. At Elsecar there is more doing than for some time past in rails and plates, and the iron trade generally may be said to be in a healthier state than it has been. The ironworks at Calder Vale are now turning out a large quantity of rails, for which of late there has been an increased demand, principally for the home markets. In plates, bars, and merchant iron, generally, there has been a better enquiry. Most of the furnaces on the Lincolnshire side of the Trent continue moderately busy, and the Frodingham Company, who are building a new furnace on the open-top principle, will have another furnace blown-in in the course of a few days.

The South Yorkshire Coal Trade is not so active as it has been, and during the last few days there has been a falling off in the orders for the London and southern markets, owing in some measure to the fine weather, and to the stocks already in hand. Silkstone nuts are in brisk request for gas purposes and smiths' work, and all that is raised meets with a ready sale, as does also nearly all qualities of slack and smudge, there being little or no coke now made from the large coal. The trade to Grimsby, Hull, and Goole, as well as to the Lancashire cotton districts, remains in about the same state as previously noticed. Coke continues in good demand, and at some of the collieries, such as Wharfedale Silkstone, where there are some 200 ovens, there is a great quantity made for the large steel works in Sheffield, including the Messel, Brown and other well-known firms. The furnaces in Lincolnshire are also taking a large quantity of coke, which will be considerably increased as the new ones in the course of construction are put in blast.

The fund in aid of the sufferers by the Oaks Colliery explosion may be said to have closed, and the subscriptions are being called in by the local committee. Although the sum raised is not so large as the committee asked for in the first instance, still the amount which will be received will be sufficient for all necessary purposes, and will, probably, reach 45,000*l.* With regard to the permanent fund, for which a committee has been formed, under the presidency of Earl Fitzwilliam, and for which some 2000*l.* has been received from the Hartley Fund, it is by no means certain that the intention of the promoters will be realised. It is proposed that the fund shall be raised by a voluntary levy of 1*l.* or 1*l.* 6*d.* per ton on the coal raised from the owner and collier. Now, it is by no means certain that the colliery proprietor, who is already heavily taxed, will volunteer to again rate himself to a considerable extent; while, on the other hand, the collier is paying at present to one or two sick and trade societies, besides having to meet heavy levies in the case of strikes and lock-outs, sometimes to the amount of 2*s.* and 6*d.* per week. But, as one of the principals of the Miners' Association said a day or two since, the men would not pay to any fund which they had not a large share in the disposal and management of. Then there are many other things to be taken into consideration, not the least im-

portant of which would be with regard to the strikes, which frequently take place in the district, and how they would affect the levy by masters and men. The question is far more difficult than would appear, and the carrying of it out in a satisfactory manner in the way indicated is more than doubtful.

During the week several interesting experiments have been made at the Swaithe Main Colliery, near Barnsley, for the purpose of testing the effects of gun-cotton in blasting. An improved fuse was adopted, and the experiments, which were carried out by Mr. John Mitchell and Mr. Pease, were more successful than was expected. On several of the shots being let off it was found, on putting out all the lights, that there was no blaze or flame—the same as in the opinion of many persons was the cause of the explosion at the Oaks—so that greater safety, combined with economy, has been the result. There can, therefore, be very little doubt but what gun-cotton will come into pretty general use in all pits where the coal is got by blasting.

Mr. Arnold, of Barnsley, has just brought out a Vertical Tube Boiler, which is a great improvement over the ordinary two-flued or Cornish boilers, and by which a saving in fuel of 25 per cent. is effected. The boilers have two fire-holes, merging into one beyond the bridge, being supplied with vertical tubes, 3 in. in diameter. The one first made has given the greatest satisfaction, and another 40 ft. long, is being constructed for the North Gawber Colliery.

A good deal of interest has been excited in the Yorkshire coal district by the offer of the colliery proprietors of South Lancashire and Cheshire to give three prizes of 500*l.*, 200*l.*, and 100*l.* for the best coal-cutting machines suitable to the requirements of the trade. As the introduction of those machines has been almost confined to Yorkshire, it is not unlikely that the prizes will come into the district. Amongst the machines which have been tested, those of Messrs. Donisthorpe and Co. have been the longest in work. Messrs. Booth and Farrar, of Barnsley, have just got their improved patent machine, the first one having been tried in the Oaks Colliery some months since, completed, and they will be amongst the competitors. Messrs. Beacher and Gillott, of the Thornecliffe Iron and Coal Works, are also making a new machine, with cast-steel cylinders, working a series of some 10 or 12 picks in rapid succession. The trial will be of the most interesting character, as the coalmasters, not only of Lancashire and Cheshire, but in nearly all colliery districts in the kingdom, are anxious to obtain a machine which can be depended upon, and the adoption of such an one would be general.

The Messrs. Leather and Co., of the Wadley Steelworks, near Sheffield, who a short time since had to throw themselves on the kindness of their creditors, have now made known their ability to discharge their liabilities in full.

The Higham Colliery dispute having been settled, the men at the Warrendale Colliery, belonging to the same firm, have asked for an advance of 1*d.* per ton. They also ask for several minor alterations, which, it is possible, will be conceded; but it is hardly likely, after what has been said by the executive of the South Yorkshire Miners' Association to the colliers employed at Carr House, that the general advance will be made. The Association does not feel itself in a position to support such a demand, and without such support it is useless to expect any concession. After waiting nearly an hour on the ground, so as to give the promoters of the meeting the opportunity of assembling, it was resolved, on the motion of John Frith, seconded by Samuel Broadhead, that the meeting be adjourned until Friday afternoon, in order that due notice may be given to every individual miner employed at the pit to attend.

Having just returned from the Oaks Colliery, I find that the fact of the 9-inch pipe having at times become a downcast, and so taking the fresh air down to where the fire, in all probability, exists, an apparatus is being erected, and will be ready by Saturday, for sending down carbonic acid gas instead of fresh air. The quantity of gas oozing from the pipe averages from 500 to 550 cubic feet per minute.

#### REPORT FROM MONMOUTH AND SOUTH WALES.

FEB. 21.—The Iron Trade of the district has for so long a period laboured under the greatest depression, that any signs of improvement are gladly welcomed. There cannot be a question but that a decided reaction has taken place during the past month, but as it has been chiefly created by the enquiries from America, doubtless through anticipations of the new Tariff Bill passing into law, it is a question whether the improvement will prove a permanent one. The general opinion is that it will, inasmuch as directly the reduction of wages became an established fact, whereby masters were enabled to enter more freely into transactions, and there was a revivification in the American trade, many of the large home consumers, who had long kept back from entering into transactions, appeared in the market with their most pressing orders, doubtless thinking it wise to do so with the price of rails advancing, and "our American cousins" placing their specifications early in the day, so as to have deliveries before the increased import duties of the new Tariff Bill came into operation. Independent of this, spring is advancing, and with it will, doubtless, come a very satisfactory trade with the Canada and Russia, and from both quarters there have been several good orders already received, whilst the expected demand from Italy, and one or two of the other markets of Southern Europe, are indexes of "a good time coming." Of late most of the shipments of iron from the local ports have been to the States of America, and there is no doubt but that shipping operations to the same quarter will continue pretty good till the end of March. Most of the leading works are tolerably well employed; in fact, there is no grumbling among the men, under present circumstances, and all are looking forward to more favourable times. The pig-iron trade has been favourably affected during the past week, but not to such an extent as to cause an alteration in quotations. In the Tin-plate Trade there is a slight improvement in the demand for charcoal qualities, and prices are well maintained. There is certainly not so much doing in the Sreac Coal Trade, but, on the whole, the demand from the foreign markets keeps up remarkably well, especially when the large purchases made during the last two or three months are taken into consideration. The home trade is especially good. In house coal there is a slackness in the local consumption, produced by the mildness of the weather, but the coasting enquiry is good.

The Hirwain Coal and Iron Company (Limited) meeting was held on Thursday, under the presidency of Mr. Handel Cossham, Chairman of the board of directors. The report stated that during the past year 130,000 tons of steam coal had been raised, which has been sold at good and remunerative prices, and it is confidently expected that the "get" during the present year will be largely increased. The directors recommended, out of the accrued profits, that an *ad interim* dividend, at the rate of 7½ per cent. be declared for the half-year ending Dec. 31. The ironworks, which were stopped in August, are still standing idle, but the directors are carrying on negotiations for letting them, which they hope to bring shortly to a successful termination. The resolution was adopted, and a dividend according to the recommendation of the directors was declared.

The Great Western Collieries Company (Limited) have declared a dividend at the rate of 8 per cent. per annum. The company's collieries have turned out much better than was anticipated.

The Monmouthshire Wagon Company (Mr. C. Bailey, M.P., in the chair) have declared a dividend of 8 per cent. per annum for the past half-year.

The Bristol and South Wales Wagon Railway Company (Mr. J. Perry in the chair) have declared a dividend at the rate of 10 per cent. per annum, with the addition of a bonus of 1*s.* per share, equal in the aggregate to 12 per cent. per annum.

The Crown Preserved Coal Company, whose works are in the neighbourhood of Cardiff, have declared a dividend at the rate of 8 per cent. per annum, being the same as in the previous half-year. The works are fairly employed, and the company's fuel is getting into request for marine purposes.

The Taff Vale Railway Company will declare, at their forthcoming meeting, a dividend at the rate of 10 per cent. per annum, being an increase of 1 per cent. per annum on the dividend of the two previous half-years. The company have had a considerable additional traffic of coal during the past half-year, and there is not the slightest doubt but that the Penarth Docks, which has been a heavy incubus, will eventually turn out, by good management, a valuable adjunct to the company.

The Dinas Colliery, for some years past the sole property of Major Hunt, has lately become the subject of a partnership arrangement. Sir J. B. Karslake and Mr. George Fisher, for many years connected with the Taff Vale Railway Company, have joined the gallant major, and Mr. Fisher is to be the managing partner. Mr. C. Anderson Harrison, formerly of New Tredegar and Risca Collieries, has been appointed resident viewer.

The arrivals at Swansea include—the *Jeune Fanny*, from St. Malo, with 80 tons of zinc ore, for D. M. Rowlands; the *Jeune Colombe*, from St. Malo, with 100 tons of zinc ore, for D. M. Rowlands; Emma Pitcairn, from Cherbourg, with 110 tons of iron ore, for W. Crawshaw; Princes des Anges, from Cherbourg, with 60 tons of iron ore, for W. Crawshaw; and the John Rosser, from Genoa, with 36 barrels of lead ore and 70 tons of copper ore, and 105 tons of copper ore from Sestri Levante, for H. Bath and Son.

FOREST OF DEAN.—The introduction of electricity has been lately effected by Mr. Cornelius Brain, at the Trafalgar Colliery. The novelty and success of which deserves special notice. It should be mentioned that this work is under the joint management of Messrs. T. B. and W. B. Brain; and a short time ago a great difficulty arose in working one of the veins, in consequence of the deliverty of the coal. So much was this the case, that the ordinary method of hauling the loaded carts to the bottom of the shaft became not only very expensive, but ultimately impracticable. To meet the difficulty, an engine erected on the bank was brought into requisition, to which was applied a length of chain reaching to the extremity of the workings. A great difficulty now arose in regard to instantaneous communication. The "dipple road" reaching a considerable distance, as well as the shaft being upwards of 200 yards in depth. The idea of electricity struck Mr. W. B. Brain, who is the engineer, who is also well up in this valuable science, that it might be advantageously applied here. Accordingly a pair of electric wires were procured, and connected by wires, and carried down the pit, and along the road to the extremity of the workings. One bell being placed in the engine-house, and the other near the top of the dipple. By a clever arrangement of the "current," the men in any part of the incline, by touching an electrical tapper, a number of which are placed along the road, signals for the instantaneous stopping or starting of the engine can be made; while this is going on the other man in charge of the bell at the bottom of the shaft is, by the same signal, ap-

prised of the message being conveyed. It is obvious, then, that such a scheme must have been a great achievement, and a triumph over a by no means small difficulty. The only drawback to its complete success was found to consist in imperfect insulation of the wires, but through the recommendation of Mr. Frost, of Blakeney, who is well known in the district for his practical knowledge of electricity, and who has acted throughout as electrician to the colliery, a new cable has been put down, and this has been found to meet every requirement, having been so successful in this application, Mr. W. B. Brain thought electrical communication might with advantage be made to supersede the old, and somewhat clumsy, method of signalling between the "hanger-on" and the engine-man. For this purpose, an instrument, manufactured with great care by Mr. H. Izant, of London, and employed on some of the metropolitan lines of railway, was introduced. This instrument is fixed in the engine-room in front of the engineer. At the pit bottom the "hanger-on" is provided with a pair of electrical tappers, coloured respectively—white and red. On touching the white tapper the bell in the engine-house is instantly struck, and the words "go on" show themselves on the dial plate attached. On touching the red bell is struck as before, and the words "stop," in white letters on a red ground (as indicative of danger), is shown. By a repetition of the touch any number of knocks may be given. This, also, has been found to answer admirably. Electrical communication has also been laid in by Mr. Frost from Mr. Brain's office to different parts of the works, so that he can be instantaneously communicated with on any matter affecting the colliery. The instruments employed are the common needle, and with bells attached. They have been, we understand, constructed for the works by Mr. Frost. The same manifested by the owner and managers of this work cannot be passed over without notice. Indeed, all the arrangements are of the most perfect character, and as an instance of the care shown by them for the safety of the lives of those under their employ, and the appreciation of such, the whole of their workmen—a short time since—contributed to, and presented their employers with a testimonial. The works are drained by Hoskold and Brain's patent and double-action pump, of which the Lilleshall Company are the manufacturers, and are among the driest in the district. No change has taken place during the week in regard to Forest products, generally the trade remains very healthy.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

FEB. 22.—The improvement previously noticed in the Iron Trade is maintained. There is a continued supply of home orders, and the doubt cast upon the chance of the increased Tariff Bill passing in the United States tends to remove the main ground of anxiety as to the trade of the present year. On the whole, prospects look more hopeful. The demolition of two blast-furnaces is only in accordance with the long-decided arrangements of the firm owning them, who have built others, and are about to get the mines under the old ones.

There is also a fair degree of recovery in the Hardware Trades. The Lancashire orders are increasing, and the foreign and colonial demand somewhat improving, though orders are for small amounts.

The Staffordshire Potteries promises to make a good appearance in the Paris Exhibition of this year, the leading manufacturers sending many choice specimens of their productions.

THE SOUTH STAFFORDSHIRE COAL FIELD.—Some members of the Dudley Geological Society, including Messrs. Beckett, F.G.S., Dr. Fraser, H. H. Beckett, Hollier, Parton, Alport, Gaudley (secretary), and Messrs. J. H. Smith, of Mr. F. Smith, and under the guidance of Messrs. Jeffries and Spruce, made an excursion to No. 3 pit at Himley, for the purpose of examining the workings which have been carried out into contact with the western or boundary fault of the South Staffordshire coal field. The shaft is about 120 yards deep, but from the steep inclination of the strata, as much as some 120 yards as one yard in four, the depth of the pit at its furthest workings is fully 80 yards more. This colliery was opened about ten years ago, and is referred to in Jukes's "Memoir of the South Staffordshire Coal Field." It remained closed for several years, since which period it has been worked under the direction of Messrs. Spruce, and a cursory examination soon convinced the visitors that it required more than ordinary skill and care to carry on the operations with anything like safety. The strata, more especially approaching the fault, are much distorted and broken up, masses of coal, having four smooth faces, and as such are much more liable to fall without warning, being pointed out in many places by those in charge of the mine. The thickness of the seams worked under the denomination of the thick or ten-yard coal varies from 5 to 7 yards, there being a considerable portion which cannot profitably be gotten. Mr. Jukes says, in his "Memoir," that it is very remarkable there seems to be no corresponding addition to the height of the brooch coal in this and No. 1 pit, near the Fire Tree House, but as the thickness between the flying reed coal and the remainder of the thick coal increases, that between the flying reed and brooch diminishes in nearly the same ratio. Wherever the thick coal remains entire there is a sandstone, known as the thick coal rock, above the thick coal and between it and the brooch. When, however, the flying reed has attained any height above the thick coal there is no sandstone between it and the brooch, but the rock is found underground, the flying reed, between it and the rest of the thick coal. Many interesting examples of this wedge-like strata of rock were observed interspersed amongst the seams of coal in different places, evidently showing that they had obtained such situations when the ingredients of the rock were in a fluid state. Upon arriving at the boundary or fault the coal strata are turned up into an almost perpendicular position, and a heading has been driven for nearly 20 yards into the adjacent rock. Upon an examination of this some difference of opinion was expressed by the parties present as to what geological formation it really belonged, and so important did it appear to determine the true nature of the strata, having a regard to the probable extension of the coal measures beyond the fault, that it was resolved to invite Messrs. Forbes, Hunt, Huxley, and some other eminent geologists to meet the society, for the purpose of thoroughly examining it.—A vote of thanks was passed to Mr. F. Smith, Mr. Jeffries, and the Messrs. Spruce; and should the gentlemen referred to meet the society, and inspect the pit, some interesting facts are expected to be established.—*Wolverhampton Chronicle.*

#### MINING, METALS, AND MINERALS—PATENT MATTERS.

By M. HENRY, Patent Agent and Adviser, M. Soc. Arts, Assoc. Soc. Eng.

Among recent specifications appears that of WEATHERDOWN, No. 1720. The invention is communicated from J. Toth, of Pesth, in Hungary, and it has for its object the preventing of incrustation in steam-boilers. The invention relates to an improved apparatus for clearing the feed water from all foreign matters, whereby greater economy of fuel and uniformity of surface heat is maintained than at present. The apparatus consists of an upright cylindrical vessel, 18 ft. high by 6 ft. in diameter, divided horizontally into two compartments. The upper one is furnished with vertical copper tubes, surrounded with water to the depth of 12 ft., whilst the lower one is supplied with steam from the waste-pipe, and causes the said water to boil. The water passes off in its heated state through the medium of a tube in a trough composed of intervening gutters. It deposits on its passage through the same the carbonates and other salts or matters which form the incrustations, and finally passes direct to the boiler-tank.

An invention emanating from Hungary may be hailed with especial pleasure, as there is every reason to hope that if the result of political matters should be the restoration of public content in this important kingdom, its great natural resources will be supplemented by industrial enterprise calculated to increase its prosperity and augment the national wealth. Hungary is a country rich in physical products, and it would be rich in industrial products if its resources were developed, and the energy of its sons turned to profitable account in the numerous paths of manufacture and the useful arts. Under a settled Government, safe in constitutional freedom, and secure in the general acquiescence, this object might be attained.

GEDGE has specified, as a communication from C. Allam and J. Trotter, of Paris, some improvements in metal boxes, mainly consisting in substituting in all parts of the box where possible for soldering by the hand the use of a particular fastening. The specification of WRIGHT, of Homerton, has been recently published. It comprises improvements in furnaces, furnace-bars, and furnace-doors. The improved arrangements, as respects the furnaces, mainly comprise the construction of longitudinal or other passages, open at the outer end to the external atmosphere, or communicating with a fan or blowing-machine, or apparatus, for forcing in currents of air, while at their other ends these passages open over, or nearly over, the fire-bars, and preferably over the back of the bars, or over the bridge. The passage of air is regulated by throttle-valves, which may be worked by connections with the furnace-door, or by other means; or the admission of air may be regulated by a slotted door sliding over a slotted plate. The furnace-door is slotted at a portion of its area, and over this slotted part travels a sliding slotted door, having at one end a shank, or stem, bearing against a stud, or projection, on the door, so as to open when the door opens. It is closed again by hand. When the slide is opened, the slots in it are opposite to, and coincident with, the slots in the furnace-door, so as to allow air to pass through into the interior of the furnace; and when the slide is closed its plane blank, or solid parts, come opposite to, and thereby shut, the slots, or openings, in the door. The fire-bars are hollow; they may be divided internally by partitions or orifices at the top and bottom, and slides are constructed so as to allow circulation of air in the bar. Sometimes the bars are made with openings, with inclined slides. An improved fan for blowing air into the furnace is described. The fan is divided by a disc or division-plate, which separates the currents of air, to prevent them from impinging against each other.

A project is at present before Parliament relative to the propriety of abolishing the office of Vice-President of the Board of Trade, and substituting two secretarieships. This proposal seems to afford an opportunity for reconsidering administrative arrangements generally, in so far as they affect the industrial action of the country. Rather a singular instance of administrative anomaly is involved in the circumstance that, while the inspection of railways is a department within the Board of Trade, the inspection of mines, a very similar ministerial duty, is a matter under the jurisdiction of the Home Office. Till lately, industrial educational departments were under the cognizance of the Board of Trade. The altered circumstances of industrial progress may sooner or later necessitate modifications in these arrangements.

The recent applications for patents include the following:—FLETCHER, Whitehaven, boring and planing metals.—JONES, Wolverhampton, shaping or forging.—STEVENS, Pontonville-road, securing coal-plates, trap-doors, &c.—HOBSON, West Ham, punching iron and other metals.—MANICO, Strand, raising sand covered by the tide to the level of high water, and there-with forming embankments for the construction of sea works.—SIMPSON, Stratford, utilising oils for heat, &c.—WESTWOOD, Bow, iron safes, and for doors for the same and other purposes.—WESTWOOD, Bow, iron piles and columns.—CLARK (communication from Lochhead and Mathieu, San Francisco), steam-boilers and generators.—THOMPSON, Ardwick, cutting and polishing metals.

Oppositions intended to the following notices to proceed must be



entered on or before March 12.—No. 2607. OUTRAM, Grutland, east-iron.—No. 2608. HAMILTON, Glasgow, fuel.—No. 2745.—PLIMSOLE, et al Middlesex, extracting metals from titaniferous ironstone or minerals containing metals.—No. 3072. BROOMAN (communication from Damspepe, Liebon), iron for ironing.—No. 3410. WATKINS, Birmingham, cutting, punching, and shaping metals for screw nuts and like articles.—No. 3412. WATKINS, Birmingham, shaping and forging metals into rivets, &c.—No. 128. LIETAR, Brussels, a composition for welding iron upon iron, iron upon steel, and steel upon steel.—No. 205.—CARRY, Bernadsey, iron channels, &c.

### THE PARIS UNIVERSAL EXHIBITION.

The Imperial Commission of the Paris Exhibition of 1867 has conceded several spaces in the Palace and in the Champ de Mars for useful buildings, motive-power, &c., and the contractors for these buildings, with all advantages, such as competing for the premiums, &c. The steam-engines and accessories for furnishing the motive-power for the machines in motion will be furnished by Messrs. Boyer, of Lille, department of the North; the Baron de Bussieres and Messmer, of Graffensteden, Haut-Rhin, who will employ a boiler on the system of MM. Charles Teubrink, of the Rue Moncey, and Felix Bonnet, of the Rue de Serres, both in Paris; Chevalier and Duvergier, of Lyons, department of the Rhone; co-operators—M. Vassiviere, contractor, constructor of the chimney, from Lyons; and the widow, Madame de Coster, of the Rue Stanislas, at Paris; Demeuse et Houget, of Verviers, Belgium, and of Aix-la-Chapelle, Prussia; Farcot and Sons, engineering works, at Saint Ouen, near Paris; Flaud, Avenue du Suffren; Le Garvian and Sons, at Moulins-Lille, Nord; co-operators—Meunier and Co., boiler makers, route de Roubaix, Saint Maurice, Lille, Nord; Leconteux, Rue Oberkampf, Paris; co-operators—Laurens and Thomas, constructors of the boiler, Rue de Rivoli; and M. Cordier, constructor of the chimney, Rue due Chemin Vert, Paris; Quillaq, at Anzin, Nord; Thomas and T. Powell, at Rouen, Seine-Inferieure; co-operator—M. Fleury, architect, constructor of the chimney and the building of the generator. The smoke-consuming apparatus of A. Thierry, Sons, and Co., of 146, Faubourg St. Denis, Paris, are to be applied to the boilers and furnaces erected by Messrs. Chevalier and Duvergier, of Lyons, above mentioned (120 effective horse power), and also to those of Thierry, Sons, and Co., themselves mounted (25-horse power) in their pavilion, at the left of the grand entrance, in front of the lake. The consumption of the fuel is rendered perfect by a jet of steam.

The works at the edge of the river are in charge of M. Cheysson, engineer of *ponts et chaussées*. Two vast sheds have been erected for machinery belonging to the English and French navies. Hydraulic machinery for the supply of water to the park, to furnish it at high pressure to send it up to the high reservoir at Trocadero, is to be erected by Thomas Scott and M. Sagey, of Havre. The machines at a lower pressure, for cascades, &c., in the park, will be furnished by M. Coignard (centrifugal), of 76, Rue Lecourbe Vaugirard, Paris; MM. Nout and Dumont (Gwynne's improved), and M. Letestu, of 118, Rue du Temple, Paris. This latter pump (piston) raises about 11,000 gallons per hour to the height of 36 feet, and is worked by a temporary locomotive of 25-horse power, by M. Calla.

The steel bridge, the first erected by the public works of France, which crosses the arched opening leading from the river side to the park, and forms the continuation of the quay, is by M. Joret, of 80, Rue Taibout, Paris. The works for the filtering of the water are by MM. Vedel and Canonnet, 19, Rue Duperré, Paris. The hydraulic lift, which will permit the visitors to mount to an elevated position, so as to obtain a view of the ensemble of the great machinery gallery, will be by M. Edouard, civil engineer, 25, Rue Bergere, Paris. The great conservatory will be by M. Darrois, 92, Rue du Faubourg du Temple; the smaller ones will be by M. Bassit, Boulevard Mont Parnasse; M. Binet, Avenue des Champs Elysees; M. Darrois, 92, Rue du Faubourg du Temple; M. Herbeumont, Rue de Paris, at Charonne; M. Isambert, Boulevard Mazas; M. Maury, Rue du Buisson-Saint-Louis; Michaux, Avenue de Courbevoie, Asnières; M. Ozanne, Rue Marguif, Faubourg Saint-Martin; M. Théry, Rue Lafayette; M. Pante, at Metz, and M. Cauchemont, at Amiens. The building stands on a surface of 37 acres, and the rest of the Champ de Mars, transformed into a park, contains 74 acres; the development of the elegant colonnade which surrounds the building is 4600 feet.

**CLEVELAND SPECIMENS FOR THE PARIS EXHIBITION.**—An elegant case, containing specimens of ironstone and other minerals, with pig and finished iron from the Cleveland district, will be exhibited by Messrs. Stevenson, Jacques, and Co., Aeklam Ironworks, at the forthcoming Paris Exhibition. The specimens consist of limestone, coke, slag, pig-iron, and a quantity of the dust left by the gas in its passage from the furnace. The castings in wrought-iron, representing the various purposes to which the Cleveland iron is applied, consist of a fish-bar, a iron made by Messrs. Smith and Thompson, Stockton, from Acklam "No. 4," the surface being as smooth as a bronze medal; a permanent water ball, made by Messrs. Head, Wrightson, and Co., Stockton; in malleable iron, bullets, and puddled iron bars, made by Messrs. John Holdsworth and Co., Stockton; armour-plate, from the Stockton Malleable Iron Company; boiler plates, manufactured by Messrs. Fox, Head, and Co., Middlesbrough; and finished iron, from the extensive rolling-mills of Messrs. Hopkins, Gilkes, and Co., Middlesbrough. Accompanying the case is an elaborate and ably-written account of the district, Middlesbrough, and Aeklam Ironworks, and the specimens, from the pen of Mr. Stevenson. The paper will be printed in different languages, so that all may be made to understand the rise, progress, and position of the Cleveland iron trade.—*South Durham and Cleveland Mercury.*

**DYNAMIC FORCE.**—A remarkable discovery has been made by Mr. C. Siemens, which demonstrates in a striking manner the convertibility of dynamic into electrical force. A bar of soft iron enveloped with copper wire, not transversely, but in the direction of its length, if inculcated in the slightest degree with magnetism, and then made to rotate rapidly, generates electricity to such a degree that wire is melted by the current, and effects are produced which have hitherto required the aid of an electro-magnet. The subject is to be brought before the Royal Society; and we hear that a similar discovery by Prof. Wheatstone will be noticed at the same time.—*Athenaeum.*

**DISCOVERY OF ORE AT TREVOR.**—Messrs. Roberts, the proprietors of the Trevor Quarries, were driving a level from the bottom of a shaft for the purpose of draining their quarry. In doing so, and after passing through a bed of shale, they crossed a metallic vein full of the indications of lead and other ores. This vein is found below the millstone grit, and makes its way through the geological features of a district so full of rich deposits is a subject fraught with interest to the practical miner, the capitalist, and the scientific geologist.—*Wrexham Advertiser.*

**LONDON GENERAL OMNIBUS COMPANY.**—The traffic receipts for the week ending Feb. 17 was 10,684l. 5s. 2d.

### BLACK CRAIG CONSOLIDATED MINING COMPANY (LIMITED).

Incorporated under the Companies Act, 1862, limiting the liability of shareholders to the amount of their shares.

Capital £20,000, in 3072 shares of £5 each, marked A, fully paid up, and 1000 shares, marked B, of £5 each.

to be paid on application, £1 on allotment, £1 in four months, £1 in eight months, and £1 in twelve months after allotment, leaving shareholders without further liability. The holders of B shares to be paid 10 per cent. out of profits before the holders of A shares are to receive any dividend; the holders of B shares may be paid off by the holders of A shares at the rate of £10 for each £5 share, by giving the holders of B shares six months notice of their intention to do so.

**DIRECTORS.**  
R. R. MICHELL, Esq., Marazion, Cornwall.  
JAMES WESTON, Esq., Sheffield.

Two other directors to be appointed at the first meeting of shareholders.

**BANKERS.**—London and County Bank, Lombard-street.

**SECRETARY.**—T. P. Scrivenner, Esq., 40, Norfolk-street, Strand.

**AUDITOR.**—Daniel Betts, Esq., Cook's-court, Lincoln's Inn.

**CONSULTING AGENT.**—Capt. Arthur Waters.

**AGENT AT THE MINE.**—Capt. John Smitham.

**OFFICES.**—40, NORFOLK STREET, STRAND, LONDON, W.C.

### PROSPECTUS.

This company has been formed for the purpose of extending the workings under a course of ore discovered in the 43 ft. level, and for developing the West Black Craig Mine, by the issue of 1000 B shares, and it is believed that the whole of the £5000 additional capital will not be required to be expended, before the will be making considerable profits. The sett is very extensive, and is held for a term of 31 years, from the 23d May, 1857, at 1-16th royalty, and is traversed by several lodes, three of which only have been worked on, and have produced enormous quantities of lead, copper, and blende ores. The mines are situated within a mile of the port and railway station of Paluro, from whence supplies of coals and materials are obtained, and the ore forwarded to the smelting-works. From the size, nature, and character of the lodes, and their great productiveness at such a shallow depth, and the economy with which they may be worked (coals, for instance, being 8s. 6d. per ton delivered), it may fairly be said to offer advantages for the outlay of so comparatively small a capital that are seldom met with. The report of Captain Arthur Waters, Captain John Smitham, the late Capt. Stephen Kiddy, Mr. George Henwood, and other practical mining agents, fully justify the belief that large quantities of ore will be obtained by sinking deeper.

Prospectuses, plans of the mines, and forms of application for shares, may be had at the offices of the company.

### Contract for Coals.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.



**THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 26th inst., at Two o'clock, they will be READY to TREAT with such persons as may be willing to CONTRACT for SUPPLYING and DELIVERING, at Chatham Dockyard Extension Works, ONE THOUSAND FIVE HUNDRED TONS OF COALS.**

A form of the tender and conditions of the contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after Two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the secretary of the Admiralty, and bear in the left-hand corner the words "Tender for Coals," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons engaging to become bound with the person tendering in the sum of £20 per 100 tons for the due performance of the contract.

By order, ANTONIO BRADY, Registrar of Contracts and Public Securities.

Contract Department, Admiralty, Somerset House, Feb. 4, 1867.

### Contract for Coals and Coke.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.



**THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 26th inst., at Two o'clock, they will be READY to TREAT with such persons as may be willing to CONTRACT for SUPPLYING and DELIVERING, at Chatham Dockyard Extension Works, SIX THOUSAND FOUR HUNDRED TONS OF COALS and SEVEN HUNDRED AND FIFTY TONS OF COKE, for brickmaking.**

A form of the tender and conditions of the contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after Two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the secretary of the Admiralty, and bear in the left-hand corner the words "Tender for Coals and Coke," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons engaging to become bound with the person tendering in the sum of £20 per 100 tons for the due performance of the contract.

By order, ANTONIO BRADY, Registrar of Contracts and Public Securities.

Contract Department, Admiralty, Somerset House, Feb. 4, 1867.

### India Office—Contract for Pig-iron.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL.



**NOTICE IS HEREBY GIVEN that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before Monday, the 25th inst., to RECEIVE PROPOSALS, in writing, sealed up, from such persons as may be willing to SUPPLY—ONE HUNDRED TONS OF PIG-IRON.**

And that the conditions of the said contract may be had on application at the India Store Office, Canon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M., of the said 25th day of February, 1867, after which hour no tender will be received.

GERALD C. TALBOT, Director-General.

India Office, February 14, 1867.

### NICHOLLS, MATHEWS, AND CO., ENGINEERS,

BEDFORD IRONWORKS, TAVISTOCK.

MANUFACTURERS OF STEAM ENGINES OF EVERY DESCRIPTION, made on the BEST AND NEWEST PRINCIPLES. We beg more especially to call the attention of the public to the MANUFACTURE of our BOILERS, which have been tested by most of our leading engineers. PUMP WORK CASTINGS OF EVERY DESCRIPTION, both of brass and iron. HAMMERED IRON and HEAVY SHAFTS OF ANY SIZE. CHAINS made of the best iron, and warranted MINERS' TOOLS and RAILWAY WORK OF EVERY DESCRIPTION.

ALL ORDERS FOR ABROAD RECEIVE THEIR BEST ATTENTION.

NICHOLLS, MATHEWS, AND CO., have 20 years' experience in supplying machinery to foreign mines, and selecting experienced workmen to erect the same, where required.

Messrs. NICHOLLS, MATHEWS, AND CO. have always a LARGE STOCK of SECOND-HAND MINE MATERIALS in stock, and at moderate prices.

SANDYS, VIVIAN, AND CO.,

COPPER HOUSE FOUNDRY, HAYLE, CORNWALL.

ENGINEERS, IRON AND BRASS FOUNDERS.

MANUFACTURERS OF PUMPING ENGINES FOR WATER-WORKS, MINING

MACHINERY, MATERIALS, AND TOOLS of every description.

Foreign mines supplied on the best terms, and at the shortest notice. Second-hand Mining Machinery and Pitwork in Stock; also a new 4 and 2-horse power high-pressure vertical engines, with boilers, and a second-hand 10-hp whim engine, condensing.

WILLIAMS'S PERRAN FOUNDRY COMPANY,

PERRANARWORTH, CORNWALL.

MANUFACTURERS OF STEAM PUMPING AND EVERY OTHER KIND OF

ENGINES, together with BOILERS, PUMP CASTINGS, and MINING TOOLS

of every description, of the very best quality. Estimates given for the supply of any amount of machinery.

London Agent.—Mr. EDWARD COOKE, 76, Old Broad-street, London.

RAILWAY CARRIAGE COMPANY (LIMITED).

ESTABLISHED 1847.

OLDBURY WORKS, NEAR BIRMINGHAM.

MANUFACTURERS OF RAILWAY CARRIAGES, WAGONS, and EVERY

DESCRIPTION OF IRONWORK.

Passenger carriages and wagons built, either for cash or for payment

over a period of years.

RAILWAY WAGONS FOR HIRE.

CHIEF OFFICES.—OLDBURY WORKS, NEAR BIRMINGHAM.

LONDON OFFICES.—6, STORRY'S GATE, GREAT GEORGE STREET,

WESTMINSTER.

THE BEVERLEY IRON AND WAGON COMPANY

(LIMITED).

MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, WROUGHT

AND CAST IRON CARRIAGE AND WAGON WHEELS, AXLES, HAMMERED

USBS, and HEAVY SMITHS' WORK FOR ENGINEERS, &c. BRASS AND

IRON FOUNDERS. MAKERS OF PORTABLE FARM RAILWAYS, TURN-

TABLES, CROSSINGS, SWITCHES, &c. AGRICULTURAL MACHINISTS.

MANUFACTURERS OF FIELD, ROAD, and BARN IMPLEMENTS, PATENT

LOBBY CARTS, and CARRIAGE WHEELS, with WOOD or IRON NAVES.

REAPING MACHINES, CLOD CRUSHERS, CORN MILLS, &c. SAW MILL

PROPRIETORS. GENERAL TIMBER CONVERTERS for home and foreign

RAILWAYS, STATIONS, BARRACKS, EXHIBITIONS, &c.

IRONWORKS BEVERLEY, YORKSHIRE.

JAMES DEWHIRST, Sec.

THE BIRMINGHAM WAGON COMPANY (LIMITED).

MANUFACTURE RAILWAY WAGONS OF EVERY DESCRIPTION, for

HIRE and SALE, by immediate or deferred payments. They have also wagons

for hire, carrying 6, 8, and 10 tons, part of which are constructed

especially for shipping purposes. Wagons in working order maintained by contract.

EDMUND FOWLER, Sec.

WAGON WORKS.—SMETHWICK, BIRMINGHAM.

Loans received on Debenture; particulars on application.

London Agent.—Mr. E. B. SAVILE, 67, Victoria-street, Westminster.

STAFFORDSHIRE WHEEL AND AXLE COMPANY

(LIMITED).

MANUFACTURERS OF RAILWAY CARRIAGE, WAGON, and CONTRA-

TORS' WHEELS and AXLES, and other IRONWORK, used in the CON-

STRUCTION OF RAILWAY ROLLING STOCK.

CHIEF OFFICES,

3 and 4, EXCHANGE BUILDINGS, BIRMINGHAM.

IMPROVED APPLICATION OF WATER POWER.

THE TURBINE.

MACADAM BROTHERS AND CO., ENGINEERS, SOHO

FOUNDRY, BELFAST, have been engaged for fifteen years, with com-

plete success, in MANUFACTURING their IMPROVED TURBINES, and can

recommend them with confidence.

This machine is applicable to all practicable heights of fall and quantities of

water, giving a much higher percentage of power than any other description of

water-wheels.

On low falls it has the additional advantage of not being affected by floods or

backwater, and it is particularly well adapted for any falls where the quantity

of water is variable.

Further particulars on application, also references to turbines now at work

on a great variety of falls.

NOTICE.—CAPT. S. M. RIDGE, of LLANIDLOES,

MONTGOMERYSHIRE (late manager of the Brynparth and Cwm Ffion

Mines, and others, in Shropshire and Wales), is NOW OPEN to INSPECT and

faithfully REPORT UPON ANY LEAD MINE in either of these localities that

may be confided to his care, having had better than 30 years' experience in lead

mining, as miner and agent.—Address, Capt. S. M. RIDGE, Llanidloes, Mont-

gomeryshire.

CAPT. S. MICHELL, of NEW TRELEIGH MINE, REDRUTH,

has PROCURED SEVERAL MINING SETTS, TWO of which are situated

in the neighbourhood of the CHIVERTON MINES, and are traversed by

several large SILVER-LEAD LODES peculiar to that district; and one in ILLO-

GAN, containing five lodes, all of which are productive in COPPER, BLENDE,

MUNDIC, and LEAD. Also, a MUNDIC SETT, that he can safely recommend.

Capt. S. MICHELL will not object to negotiate with any respectable party with a

view to DISPOSING OF or WORKING these VALUABLE PROPERTIES.

### GREAT MONA MINING COMPANY (LIMITED).—

SECOND ISSUE OF SHARES.

This company was formed, with a capital of £25,000, in 5000 shares of £5 each, first issue 2500 shares (which were all taken up a little more than twelve months ago), for the purpose of developing a very valuable mining sett, in close proximity to the Great Laxey Mines.

The sett held by the company, under lease from the Crown, are very extensive, comprising nearly 2000 acres, on which, it is stated by practical mining engineers, there will ultimately be three excellent mines. The company has proved the sett in two parts by adit levels, both of which have produced good lead and copper ore. One feature of advantage is that the mine can be drained to a great depth by adit levels, without the aid of machinery; and, judging from what has already been produced, the directors believe that it will become a very profitable investment to the shareholders. Both Captain John Trewin, the resident agent, and Capt. John Kitto (who is a large shareholder), confidently assert that it will soon become a lasting dividend-paying mine; in fact, Capt. Kitto (under whose joint management the Great Laxey was brought to the present position it has occupied amongst the best dividend-paying mines in the kingdom for some time past, having yielded to the original shareholders about 50 per cent. per annum in dividends alone, besides increasing the value of the shares about 500 per cent. in eighteen months) expresses his surprise at both the quality and quantity of ore obtained in this mine at so shallow a depth, and his confidence in its ultimate success. He also states that both quality and quantity are equal to the Great Laxey, at a much greater depth.

The chief operations have been on the Ballaglass part of the sett, where there is an engine-shaft sunk about 22 fathoms. At 10 fathoms a level has been driven north and south, and in this level there is a body of blende, from 18 in. to 2 ft. wide, which it is stated will pay for stoping. All the efforts have of late been concentrated on the erection of a 40-ft. water-wheel, which it is expected will be completed and at work by the end of this month. Immediately on the completion of the wheel, Capt. Trewin states that he can commence to raise ore, which will very soon place the mine in a very good position.

The directors have decided at the present time only to issue 1000 of the reserved shares, feeling confident that the remaining 1500 shares will realise a good premium when the mine is a little further developed, and the present issue of 1000 shares will enable them so far to develop the property as to place it in a dividend-paying position.

The shares will be issued subject to the following conditions:—10s. to be paid on application, 20s. on allotment, 20s. in three months after allotment, and 20s. in six months. They will then be equal to the first issue in regard to calls, as £3 10s. has been called up on them.

Application to be made to Messrs. J. TAYLOR and Co., 17, Cross-street, Manchester, where prospectuses may be had and samples of the ore be seen; and of Messrs. BARRETT and Co., Stock and Share Brokers, 20, Spring-gardens, Charing-cross, S.W., and 78, Lombard-street, London, E.C.

It will be necessary that immediate application should be made, as some portion is already taken up, and the list will only remain open a few days. Should no allotment be made the deposit-money will at once be returned.

### SOUTH FOWEY CONSOLS COPPER MINE,

Situate in the parish of TYWARDREATH, CORNWALL.

In 6000 shares.

On the Cost-Book System, which possesses all the advantages of the Limited Liability, without its fines, penalties, and winding-up cumbrous processes, as any shareholder can, at any time, terminate

his liability by a written notice to the pursuer.

Deposit on application, 5s. per share; payment on allotment, 5s. per share; all to go towards the general expenditure of the mine.

Future calls to be made as required.

**DIRECTORS.**

The Rev. Dr. TREFFRY, Place, Fowey, Cornwall.

ROBERT THOMAS HEAD, Esq., the Briars, Exeter.

EDWARD LAMBERT, Esq., 28, York-terrace, Regent's-park, London.

R. W. BRYDGES WILLYAMS, Esq., Nansaval, St. Columb, Cornwall.

L. J. WEST, Esq., Tredanham House, St. Blazey, Cornwall.

W. S. SUTTON, Esq., Brighton.

(With power to add to their number).

**BANKERS.**

Messrs. Roberts, Lubbock, and Co., Lombard-street, London.

Messrs. Wiliams, Treffry, West, and Co., South Cornwall Bank, St. Austell.

**SOLICITORS.**

R. W. Head, Esq., Exeter; and

Messrs. Hapton and Burgin, 9, John-street, Bedford-row, London.



## In Chancery.

CLEWS v. ALCOCK.

**MR. JOHN HIGGINSBOTTOM WILL SELL, BY AUCTION,** pursuant to an order of the High Court of Chancery, made in the above cause, with the approbation of the Judge to whose Court the said cause is attached, at the Railway Hotel, Stoke-upon-Trent, in the county of Stafford, on Thursday, the 21st day of February, 1867, at Four o'clock in the afternoon, in Aine Lot's an undivided FOURTH PART of and in certain

**FR. EHOLD AND IMPORTANT MINERAL PROPERTY,** situate at Bucknall, in the parish of Stoke-upon-Trent, in the county of Stafford, comprising TWO FARM HOUSES, and ARABLE MEADOW, and PASTURE LAND, and DWELLING HOUSES, and of and in HEREDITARY RIGHTS in Hanley, Staffordshire, and the ENTIRETY of HEREDITARY RIGHTS in Burslem.

## PARTICULARS.

No. on plan.	Description.	Quantities.
1.	Homestead at Bucknall	1 0 0
2.	Barn meadow	3 2 11
3.	Cottage meadow	3 1 0
4.	Near Hot Croft	2 2 10
5.	Far Hot Croft	5 1 4
6.	Nip or Jack Croft	2 1 0
7.	Fell Brook Meadow	4 3 3
8.	Holehouse or Olders Meadow	4 1 30
9.	Part of Birehamley and Beamsley	8 0 30
10.	Part of Birehamley	5 1 20
11.	Doitto	2 2 24
12.	Knowl Rowley	2 1 37
13.	Doitto	1 1 15
14.	Doitto	3 3 13
15.	Doitto	0 2 39
16.	Doitto	0 3 0
17.	Doitto	3 3 25
18.	Doitto	0 2 31
19.	Far Calf Croft	2 0 14
20.	Near Calf Croft and Slang	3 2 34
21.	Heath	3 0 33
22.	Long Rowley	10 2 9
23.	Rowley Bottom	1 3 22 A. R. P.
24.	Rough Shaw	8 2 34=87 0 38
25.	And also of and in a malt-house heretofore held with the said farm, but now untenanted; also, an undivided fourth part of and in two cottages or dwelling-houses, adjoining the homestead of the said farm (heretofore occupied as one dwelling-house, and then and now called Bucknall Cottage), with the garden, pleasure-ground, out-buildings, and appurtenances thereto belonging, and therewith held in the occupation of Joseph Twigg and Sarah Heywood, as tenants from year to year, at the annual rental of £18	0 2 13=0 2 13
26.	Also, an undivided fourth part of and in another farm-house, out-buildings, garden, and appurtenances, situate at Bucknall aforesaid, called Fellbrook, adjoining the first-described farm, together with those several acres of arable, meadow, and pasture land thereto belonging, as hereafter described as now in the holding of John Deaville, as tenant from year to year, at the annual rental of £28.	
27.	Homestead at Fellbrook	0 1 35
28.	Meadow	3 2 32
29.	Part of Birehamley	0 0 37
30.	Doitto	0 3 3
31.	Birehamley	4 2 29
32.	Doitto	1 1 28=11 1 5
33.	Also, an undivided fourth part of and in several closes of meadow and pasture land, situate near to the village of Bucknall aforesaid, called the Colley Hills, as hereafter described, in the holding of John Docksey, as tenant from year to year, at the yearly rent of £45, which includes the rent of the two cottages, comprising Lot 3, the same being let together.	
34.	Big Colley Hill and lane	6 1 5
35.	Near ditto	1 3 23
36.	Far ditto	2 3 14=11 0 2
37.	And also the undivided fourth part of and in other closes of meadow or pasture land, called the Sandy Finney, situate at or near Northwood, Hanley, in the county of Stafford (separated from the farm lastly described by the River Trent), as hereafter described, in the occupation of Edward John Ridgway, Esq., as tenant from year to year, at the yearly rent of £32.	
38.	Sandy Finney	10 0 37=10 0 37
Total		120 1 15

The mines of coal in this estate are very extensive and valuable, and comprise three distinct series—"The Upper," which is known by the names of the Mossfield coal, Yard coal, Ragman coal, and Bireham coal, and it is estimated of these coals there are about 16 acres of each seam under the estate. "The Middle" contains the 10-foot coal, Bowling-alley coal, Holly-lane coal, and the Sparrow Butts or Hard Mine coal, which are proved in the immediate district to be of good quality for house firing and manufacturing purposes; of this series of coal it is estimated there are about 70 acres of each seam under the estate.

"The Lower" contains the Banbury coal, Cockshed coal, Bullhurst coal, and the Wimpney coal. The first three seams are of good quality for household and manufacturing purpose. Of this lower series it is estimated there are about 110 acres of each of these seams under the estate. In addition to the above, there is a detached portion of about 11 acres, containing the Bullhurst coal and the Wimpney coal, with two pits sunk upon it, and an engine-house erected.

The estate being within easy distance of the towns of Hanley and Stoke-upon-Trent, and being intersected by the Biddulph Branch of the North Staffordshire Railway, possesses extraordinary facilities of disposing of the coals when got.

**LOT 2.**—An undivided FOURTH PART of and in all that MESSUAGE or DWELLING HOUSE, situate at Bucknall aforesaid, with the out-buildings, yard, garden, stable, and appurtenances thereto belonging; and also of and in all that close of meadow or pasture land, situate at the rear of such dwelling-house, known as the Big Paddock, as hereafter described as now in the holding of Jeremiah Beardmore, as tenant from year to year, at the annual rental of £25.

**LOT 3.**—House, yard, garden, and office, situate at Bucknall aforesaid, as hereafter described, being within easy distance of the Staffordshire Potteries, and possessing every requisite convenience, render it a desirable residence for a gentleman engaged in commercial pursuits.

**LOT 4.**—An undivided FOURTH PART of and in those TWO COTTAGE DWELLING HOUSES, or TENEMENTS, out-buildings, yard, garden, and appurtenances, situate in the village of Bucknall aforesaid, formerly occupied as a public-house, and called the Dog and Partridge Inn, as now in the holding of John Docksey and another, as tenant from year to year. These two cottages are held with the land called the Colley Hills, as before mentioned.

**LOT 5.**—Two cottages, out-buildings, yard, and garden, situate at Bucknall aforesaid, as hereafter described, as tenants from year to year, at the annual rental of £22.

**LOT 6.**—An undivided FOURTH PART of and in all that PLOT or PARCEL of LAND, situate in Emson-street, adjoining High-street, in the town and borough of Hanley aforesaid, and having a frontage thereto of 96 ft. 3 in., as the same is now enclosed by a brick wall, adjoining the property of Mr. W. Wilson, and contains about 555 yards.

**LOT 7.**—An undivided FOURTH PART of and in all those TWO COTTAGES or DWELLING HOUSES and PREMISES situate in Queen-street, adjoining Broad-street, in the borough of Hanley aforesaid, in the holding of Elizabeth Tew and John Pritchard, as weekly tenants, at the weekly rents of 2s. 6d. each.

**LOT 8.**—An undivided FOURTH PART of and in all that COTTAGE or DWELLING HOUSE and PREMISES, situate in Union-street, within the borough of Hanley aforesaid, as now in the holding of James Stevenson, as weekly tenant, at the weekly rent of 2s. 6d.

**LOTS 5, 6, and 7** are copyhold of the manor of Newcastle-under-Lyme. N.B.—An annuity of £20, payable during the life of a gentleman, aged 57 years or thereabouts, is charged on the entirety of the foregoing lots. One-fourth of the amount, or £5 per annum, will be made payable out of Lot 1.

**LOT 9.**—THE ENTIRETY of TWO FREEHOLD DWELLING-HOUSES, numbered 12 and 14, Liverpool-road, Burslem, No. 12 being in the occupation of Thomas Robinson, as tenant from year to year, at the annual rent of £25; and No. 14, with cooper's shop in front, in the occupation of Andrew Cliff, as tenant from year to year, at the annual rent of £15. This lot has a commanding frontage to Liverpool-road, and the site contains 614 yards.

**LOT 10.**—THE ENTIRETY of a DWELLING HOUSE, No. 2, High-street, Burslem aforesaid, in the occupation of Thomas Pass, as tenant from year to year, at the annual rate of £12 10s.

Lithographed plans and printed particulars and condition of sale may be had, gratis, of Messrs. ASHURST, MORRIS, and Co., of 6, Old Jewry, in the City of London, solicitors; of Mr. ALCOCK, solicitor, Burslem, Staffordshire; JOHN HIGGINSBOTTOM, of Fenton, Staffordshire; Mr. C. J. H. HOMER, mineral surveyor, Chatterley, near Tunstall, Staffordshire; Mr. RALPH HALE, surveyor, Cobridge, Staffordshire; and of Mr. W. E. TWIGG, solicitor, Burslem.

**LEAD MINE.**—FOR SALE, BY PRIVATE CONTRACT, the LEASE, PLANT, and MACHINERY of the TEEB SIDE MINE, near ALSTON, CUMBERLAND. The seat is very extensive, and is traversed by several powerful veins; from one of them 1000 tons of lead ore has been raised from a shaft 20 fathoms deep, and on a length of ground about 50 fathoms in extent, at 1-7th fms. The dross are now 1-20th. Lodgings for miners, work, shops, stabling, &c., are all in order for immediate operations. The agent on the mine will show the property, and for other particulars apply to Mr. J. H. ROBINSON, 21, Cumberland-row, Newcastle-upon-Tyne; to Messrs. HOYLE, SHIPLEY, and HOYLE, Solicitors, Newcastle-upon-Tyne; or Messrs. HILL and HOYLE, Solicitors, 128, Cannon-street, London.

## In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

**IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WEST ROSEWARNE MINING COMPANY.**—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 20th day of February inst., presented to the Vice-Warden of the Stannaries by William Harris and Frederick William Dabb, contributors, and the said William Harris being also a creditor of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, on Saturday, the 23rd day of March next, at Eleven o'clock in the forenoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or his agent, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro. Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner, their solicitor, or his agent, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 27th day of February instant, and notice thereof must at the same time be given to the petitioner, their solicitor, or his agent.

HODGE, HOCKIN, AND MARRACK, Truro, Cornwall.  
(Agents for S. T. G. Downing, Redruth, Solicitor to the Petitioner.)  
Dated Truro, February 20, 1867.

## In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

**IN THE MATTER OF THE COMPANIES ACT, 1862, and of the GREAT WHEAL FORTESCUE MINING COMPANY.**—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 19th day of February instant, presented to the Vice-Warden of the Stannaries by Robert Richards, a creditor, and also a contributory of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, in the county of Cornwall, on Saturday, the 23rd day of March next, at 11 o'clock in the forenoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro. Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same from the petitioner, his solicitor, or agent, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before Thursday, the 28th day of February instant, and notice thereof must at the same time be given to the petitioner, his solicitor, or his agent.

JOHN DALE,  
(Solicitor for the Petitioner), Helston.  
J. G. CHILCOTT,  
(Agent of the said Solicitor), Truro.  
Dated Truro, this 20th day of February, 1867.

## In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

**IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WEST CLIFFORD UNITED TIN AND COPPER MINING COMPANY (LIMITED).**—TO BE SOLD, BY PUBLIC AUCTION, at and upon the WEST CLIFFORD UNITED TIN AND COPPER MINES, situate in the parish of Gwennap, in the county of Cornwall, under the direction of the Registrar of the said Court, on Tuesday, the 12th day of March next, at Twelve o'clock at noon, subject to such conditions as shall be then and there produced, the several DEBTS or GRANTS by virtue of which the mining operations of the said company have been carried on, and all the MINING MACHINERY and MATERIALS at and upon the said mines, including—

ONE 80 in. cylinder PUMPING ENGINE, with THREE BOILERS, about 11 tons each.  
ONE 26 in. cylinder WINDING ENGINE, with BOILER about 10 tons.  
Three balance-bobs, with wrought-iron connection pieces, and also the pitwork, together with the account-house furniture, and a variety of other effects in general use in mines, full particulars of which appear in hand-bills.

JOSEPH ROBERTS, Solicitor, Truro.  
Dated Registrar's Office, Truro, Feb. 21, 1867.

TO MINE AGENTS, IRONFOUNDERS, RAILWAY CONTRACTORS, BUILDERS, AND OTHERS.

**MESSRS. BUCKLAND AND RENDELL WILL SELL, BY PUBLIC AUCTION,** on Monday and Tuesday, 25th and 26th February, 1867, at the WEST BEAM MINE, near ASHBURTON, the VALUABLE MACHINERY and MATERIALS thereon, comprising—

ONE 56 in. cylinder STEAM PUMPING ENGINE, 9½ ft. stroke, equal beam, and TWO BOILERS 11 tons each, in excellent condition.  
ONE 40 in. cylinder STEAM PUMPING ENGINE, 10 ft. stroke, equal beam, and ONE BOILER about 11 tons (nearly new), with a cast-iron balance-bob.  
ONE 24 in. cylinder ROTARY STEAM ENGINE, fly-wheel and drawing gear attached, and ONE BOILER about 11 tons, in excellent condition.  
ONE WATER-WHEEL, 30 ft. diameter, 3 ft. breast, iron rings, axle, pumping crank, and powerful DRAWING MACHINE attached, nearly new.  
ONE WATER-WHEEL, 30 ft. diameter, 4 ft. breast, iron rings, axle, and ratchet wheels.  
ONE WATER-WHEEL, 24 ft. diameter, 3 ft. breast, cast-iron axle and cog wheels.

2 large castpans, iron axles.  
1 12 in. stuffing box and gland.  
1 10 in. stuffing box and gland.  
85 fms. wood main rods, 12 and 14 in.  
38 fms. ditto main rods, 10 in.  
15 fms. ditto main rods, 8 in.  
15 fms. ditto main rods, 6 in.  
11 fms. ditto main rods, 5 in.  
Best red pine and memel well fitted for building purposes.  
Large quantity of bucket rods, 1½ in. bucket prongs.  
Large quantity of best hammered iron strapping plates and side plates.  
Rod and flange pins.  
Staples and glands.  
Shaft rolls.  
3 large balance-bobs.  
1 large angle bob.  
2 travelling bobs.  
300 fms. ½ in. chain.  
53 fms. ¾ in. flat-rod.  
90 fms. 1½ in. flat-rod.  
Ladders.  
Large cistern.  
8 tram wagons.  
Large quantity good bridge rails.  
2 horse whims.  
5 whim kibble.  
2 new skips.  
Pulleys and shivers of different sizes.  
Large yokes, 3 pin chains.  
1 40 in. smith's bellows.  
1 42 in. smith's bellows.

New iron, steel, 2 grindstones, 1 anvil, 1 vice, several new wood sheds, scales, weights, quantity of timber, dressing floors, kieves, with a quantity of various materials too numerous to mention.

These materials are well worth attention, as they are nearly new, and were purchased regardless of expense.

The mine is situated about five miles from Newton station, to which there is a good road.

For viewing the same, apply to Capt. JOSEPH BAKER, on the mine. Catalogues may be had on application to the Auctioneers, Newton Abbott; Mr. BETTELEY, Ashburton; or Mr. WILLIAM MATHEWS, engineer, Tavistock, and from whom any further particulars may be obtained.

Refreshments on the table at Twelve o'clock. Sale to commence punctually at One o'clock.—Dated February 6, 1867.

## STAFFORDSHIRE.

TIVIDALE COLLIERY, NEAR DUDLEY.

**MESSRS. OATES, PERRENS, AND WOOLDRIDGE** have received instructions from the mortgagees to OFFER FOR SALE, at the Dudley Arms Hotel, Dudley, on Saturday, the 23rd day of March next, at Five o'clock in the afternoon, subject to conditions then to be produced, an UNDIVIDED MOIETY of the above—

**VALUABLE MINING ESTATE,** consisting of FARM HOUSE, EIGHT COTTAGES, STEAM ENGINES, ERECTIONS, TRAMWAYS, OFFICES, and 69 A. 0 R. 5 P. of SURFACE LAND; together with the VALUABLE MINES OF THICK and other TREASURES, L.L. IRONSTONE, FIRE CLAY, &c., now under lease for a term of twenty-eight years, fourteen of which will be unexpired at Lady-day next.

NOTE.—This property is situated at Tividale, midway between Dudley and Oldbury, and close to the Stour Valley Railway and Birmingham Canal. Further particulars may be obtained, and a copy of the lease seen, on application to Messrs. PARTRIGE and WOODWARD, solicitors, 51, Ann-street, Birmingham; and to view the property, or any information as to the mines, application to be made to Mr. THOS. MILLERSHIP, mine agent, West Bromwich; or Messrs. OATES, PERRENS, and WOOLDRIDGE, auctioneers, Stourbridge.

**WHEAL SIDNEY, PLYMPTON ST. MARY, DEVON.** About two miles from Plympton Station, on the South Devon Railway.

**MR. JOHN ANDREW WILL SELL, BY AUCTION,** without reserve, on Tuesday, 5th March next, at the George Inn, Ridgeway, at Three o'clock in the afternoon, the following MACHINERY, now standing on the above mine, viz.—

Lot 1, will comprise a 56 in. cylinder PUMPING ENGINE, with 10 ft. stroke in cylinder and 9 ft. in shaft, in good order and condition.  
Lot 2.—A large BOILER about 11 tons.  
Lot 3.—One piece of oak pumping rod, 12 in. square, with caps, plates, &c., complete.

Lot 4.—An 18 in. cylinder DRAWING ENGINE, with cage, very complete, and in good condition.

For viewing the above, and further particulars, apply to Capt. EDWARDS, at Ridgeway, or to the Auctioneer.

## In Chancery.

**IN THE MATTER OF THE COMPANIES ACT, 1862, AND IN THE MATTER OF THE NANT COAL COMPANY (LIMITED).**  
TO COLLIERY PROPRIETORS AND OTHERS.—SALE OF THE NANT COLLIERY, FLINTSHIRE.

**MR. J. PICKERING** has received instructions from the Liquidators appointed to wind-up this company, to OFFER FOR SALE, BY AUCTION, on Wednesday, the 13th day of March, 1867, at the Grosvenor Hotel, in the City of Chester (unless disposed of by tender on or before the 1st of March), the whole of the EXTENSIVE and very VALUABLE MINERAL PROPERTY, known by the name of the

## "NANT COLLIERY."

Situated three miles from the town of Mold, nine from Chester, and twenty-six from the shipping port of Birkenhead, together with the LEASES, PLANT, MACHINERY, &c.

The area of this property is about 500 acres of the best mineral ground in Flintshire, containing all the celebrated North Wales Steam and House Coal and Cannel. It is held by leases granted by the Lords of the Manor of Mold, and the Trustees of Ruthin Grammar School. These leases are for a term of twenty-one years each, seven of which respectively are unexpired. They contain the usual clauses for renewal, if required. The royalties and minimum rents are very moderate.

Of the area above mentioned about 40 acres only have been wrought, leaving the remainder intact.

The Mold branch of the London and North Western Railway runs through the centre of the property, and the pits are connected with it by a private locomotive branch nearly a thousand yards long, with all junctions, points, crossings, gates, &c., complete, thus affording convenient access by the narrow-gauge system to all parts of the kingdom.

The PLANT on the colliery is very extensive and good. It comprises ONE HORIZONTAL HIGH-PRESSURE PUMPING-ENGINE, with three boilers and fittings, cranks, bobs, rods, and 12-in. pitwork complete; TWO ditto WINDING ENGINES, with three boilers and fittings, double pit-head frames, flat wire-ropes, cages and conductors, complete; capstans, shears, jackroll, &c.; two wrought-iron screens, with iron tipplers; a PORTABLE ENGINE, and new iron saw-bench of the most modern construction, with self-acting adjustment, and two circular saws of 4 ft. and 3 ft. diameter respectively; a TANK LOCOMOTIVE ENGINE, nearly new; a large quantity of iron tubs, water tanks, rails, plates, and crossings; a very good and useful assortment of smiths' and carpenters' tools, various timber, stoves, and loose materials.

This colliery being immediately contiguous to the extensive and well-known Buckley Brick and Tile Works, which consume a very considerable amount of fuel, a constant local demand is afforded for its produce.

The whole will be sold in one or more lots, of which due notice will be given.

The Auctioneer has much pleasure in offering this valuable property to capitalists as an investment rarely to be met with.

Tenders may be forwarded to the Liquidators, but they will not be bound to accept the highest or any tender that may be made.

For further particulars, and to view the same, apply to Mr. J. HOLCROFT, on the premises; Messrs. MCNEIGHT and ALFRED HARRISON, the Liquidators, 48, Paradise-street, Birmingham; or Mr. ROBERT H. FOSTER, Solicitor, Birmingham; and to the Auctioneer, the Eastgate, Chester respectively.

Catalogues, containing plans, sections, &c., can be had twenty-one days prior to the day of sale, from the Auctioneer, and from the principal hotels in Chester, Mold, and Birmingham.

## In Chancery.

**IN THE MATTER OF THE PLYM RIVER SLAB AND SLATE COMPANY (LIMITED).**

**TO BE SOLD, BY TENDER,** with the approbation of the Vice-Chancellor Sir John Stuart, pursuant to an Order of the Court of Chancery made in the said matter, the VALUABLE LEASEHOLD INTEREST in the premises known as the

## PLYM RIVER SLAB AND SLATE QUARRIES,

Together with the PLANT, MACHINERY, and EFFECTS, comprising powerful STEAM ENGINES, a large WATER-WHEEL, and other appliances to expedite the raising of slate, now in and upon the above quarries.

All tenders to be forwarded to THOMAS PARTINGTON SCHIVENER, Esq., 40, Norfolk-street, Strand, London, W., public accountant, the official liquidator of the said company, on or before the first day of March next, of whom orders to view, and further particulars, may be obtained; and also of Messrs. PAWLE, LOVESY, and FEABON, at whose offices the said lease and underlease respectively may be inspected. The acceptance by the said THOMAS PARTINGTON SCHIVENER of any tender made to him will be conditional on the sanction of the said Judge, by an order for that purpose being obtained.

PAWLE, LOVESY, AND FEABON, 7, New Inn, Strand, W.C., Solicitors for the Official Liquidator.

Dated the 4th day of February, 1867.

## GLAMORGANSHIRE.

**VALUABLE COLLIERY AND BLACKBAND IRONSTONE.**

**MR. T. E. GEORGE WILL SELL, BY AUCTION,** at the Westgate Hotel, Newport, on Saturday, March 2, 1867, at Three o'clock in the afternoon,

## THE CILVACHARGOED COLLIERY,

In the parish of Gellygwal, with all the PLANT, consisting of trams, tram-plates, 20-horse power steam-engine, smiths' tools, inclined plate, and weighing machine, all in good working order.

The COLLIERY comprises the unworked Mynyddiwlwyn seam of red ash house coal, under a large tract of land, and also the unworked blackband ironstone lying under the same lands.

Also a piece of FREEHOLD LAND adjoining the Rumney River, partly occupied by sidings and tips, connecting the colliery with the Brecon and Merthyr Railway, and affording a desirable site for opening to the lower coal measures.

Also the LEASE of SURFACE LANDS of Cilvachargoed Vach, with dwelling-house and stabling, containing about 24 acres of arable and pasture land. The colliery and blackband openings are all in good working order, and are connected with the New Rhyndyffelen and the Brecon and Merthyr Railways, leading to the ports of Newport and Cardiff.

To inspect the colliery apply to Mr. DAVID THOMAS, the manager. For further particulars, with plans and conditions of sale, apply to Mr. LATCHE, Victoria-place; Mr. T. M. LLEWELLYN, Solicitor, Dock-street, Newport; or to the Auctioneer, Pentwyn, near Newbridge.—Newport, Feb. 14, 1867.

## BY ORDER OF THE OFFICIAL LIQUIDATOR.

**THE LEASE OF AN IMPORTANT QUARRY NEAR CARMARTHEN,** belonging to the PANT-Y-GLIEN SLATE AND SLAB COMPANY.

**MESSRS. DEBENHAM, TEWSON, AND FARMER WILL SELL,** at the Mart near the Bank, on Tuesday, March 12th, at Two o'clock, in one lot, the old-established

## PANT-Y-GLIEN QUARRY,

Extending over TWENTY-SEVEN ACRES, at Abergwili, near Carmarthen, together with the houses and erections thereon, as held for forty-eight years, at £200 a year, and a royalty of 1-20th. £4000 was given to the freeholder on the granting of the lease, besides paid-up shares representing £2000 more, and an outlay of £3000 has recently been made in improvements. The property has been inspected by several engineers, who consider it one of the most compact quarries in South Wales, and capable of yielding a large income.

Particulars of R. CHANDLER, Esq., Solicitor, No. 2, Bucklersbury; and of the Auctioneers, 80, Cheapside.

## BY ORDER OF THE ASSIGNEES OF RICHARD TREDINNICK,

A BANKRUPT.

**MR. W. H. MOORE WILL SELL, BY AUCTION,** on the premises, Nos. 2 and 3, South Grove East, Midway Park, near the Newington-road Station of the North London Railway, on Tuesday and Wednesday, February 26th and 27th, at Eleven for Twelve o'clock each day, the SUPERIOR MODERN FURNITURE of the above residences, comprising drawing and dining room furniture, the appointments of six bed-chambers, and numerous other effects.

On view on the Monday preceding the days of sale, and catalogues had on the premises, of Messrs. HALSE, TRUSTRUM, and BIRT, solicitors to the assignees, 61, Cheapside, E.C.; and at the auctioneer's offices, 6, George-street, Euston-road, near the George-street Station, N.W.

**TO BE DISPOSED OF, in the district of North Staffordshire,** BY PRIVATE CONTRACT, a FIRST-CLASS COLLIERY, in full operation. The area is considerable, and contains both house fire and manufacturers' coal, and is now paying a good profit, which may be much increased. A railway runs through the estate, and the canal is connected with the works. This property is well adapted for a limited company.—Application by letter, to "X. Y. Z." Post-office, Newcastle, Staffordshire.

**FOR SALE,** and may be seen at the Ashburton Mines, ONE 56 in. PUMPING ENGINE, with TWO 11 ton CORNISH made BOILERS. ONE 40 in. PUMPING ENGINE, only made a short time, and as good as new, with an 11 ton BOILER. A 24 in. WHIM ENGINE, with stamps attached. ONE 11 ton BOILER. Several WATER-WHEELS of various sizes, one with a very excellent drawing machine attached. Pumps and materials of all sorts and sizes.—Application may be made to Mr. W. MATHEWS, engineer, Tavistock, or can be seen on application to people in charge of the mine.

**TO BE SOLD, cheap, a PORTABLE ENGINE** of 14 horse power, double cylinder, of first-class construction, workmanship, and material. Winding gear to order. SECOND-HAND PORTABLES FOR SALE.—Apply to Messrs. BARROWS and CARMICHAEL, engineers, Banbury, Oxon.

**STEAM-BOILERS** made by WILLIAM WILSON, LILYBANK BOILER WORKS, GLASGOW, on the most improved principles, for home and export. All boilers made of the best material and workmanship, proved and warranted tight under a high pressure, and delivered at any railway station or shipping port in the kingdom at moderate rates. Lithograph of boilers forwarded post-free on application.



**INEXPLOSIVE BLASTING POWDER**

(Invented by G. A. NEUMEYER)

**CANNOT EXPLODE WHEN EXPOSED TO AIR!**

ALL INTERESTED IN COLLIERY, MINING, AND ENGINEERING OPERATIONS are invited to TEST this NEW INEXPLOSIVE COMPOUND, which meets with great favour upon the Continent, where it has been in use for some time past.

This powder combines STRENGTH with SAFETY to a degree never before known. It is more economical than ordinary blasting-powder:—

- 1.—Because it is cheaper in first cost.
- 2.—It is lighter than the blasting-powder now in use.
- 3.—With same bulk (which is less weight) more effect is produced.

EDWIN H. NEWBY is now prepared to register orders for the above. Particulars, post free, on application to the offices, No. 39A, KING WILLIAM STREET, CITY, LONDON.

**BOWLING IRON COMPANY,**

BRADFORD, YORKSHIRE.

**BEST CRUCIBLE CAST-STEEL TYRES, AXLES, CRANK AXLES, BOILER PLATES,**

Also COG WHEELS, and other CASTINGS.

This company is prepared to furnish the above-mentioned articles in CAST STEEL of a very superior quality, made principally from their own well-known "BOWLING IRON."

Also BOWLING WROUGHT-IRON SOLID WELDLESS TYRES of any size and to any section.

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MANUFACTURERS OF

BOLTS, RIVETS, WASHERS, COACH SCREWS, SPIKES, SET PINS, TIE RODS, COTTER PINS, &amp;c.;

ALSO,

NEERS' AND SHIPBUILDERS' FORGINGS, SMITHS' WORK, and every description of SHIPS' FASTENINGS.

WORKS,—SEACOMBE, NEAR BIRKENHEAD.

**A GOOD ROLLING MILL TRAIN ON SALE**

AT THE  
SEACOMBE FORGE RIVET AND BOLT WORKS,  
Near Birkenhead.

**PATENT FLEXIBLE TUBING,**

AND BRATTLE CLOTH FOR MINES,

MANUFACTURED BY

ELLIS LEVER,

PATENTEE,  
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TO COLLIERY PROPRIETORS.

**BEST CHARCOAL IRON AND STEEL WIRE ROPES,**  
Also HEMP ROPES, for MINING PURPOSES.

ELLIS LEVER,

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**BAGILLT OIL COMPANY (LIMITED),**

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**MANUFACTURERS OF BLACK GREASE**

FOR COLLIERY WIRE ROPES, TRAMS, WAGONS, &c., £5 PER TON.  
TORCH AND LAMP OIL, 1s. PER GALLON (Casks free).  
LUBRICATING OIL, 1s. PER GALLON (Casks free).

STEEL! STEEL! STEEL!!!

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MANUFACTURER OF SUPERIOR REFINED CAST STEEL for  
MINERS' DRILLS.

CUP and TURNING TOOLS, price and quality not surpassed. Try one bar, delivered free at manufacturers' prices.

J. TURNER keeps in stock all kinds of tools suitable for engineers, mining purposes, and shipbuilders, at the Stockton depot, where all communications are requested to be sent.

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HENDON PATENT ROPEWORK, SUNDERLAND.

**MANUFACTURERS OF ALL DESCRIPTIONS OF STEEL IRON, and HEMP ROPES for COLLIERIES, SHIPS, &c.**

**JOHN AND EDWIN WRIGHT,**

PATENTERS.

(ESTABLISHED 1770.)

MANUFACTURERS OF EVERY DESCRIPTION OF IMPROVED

**PATENT FLAT AND ROUND WIRE ROPES,**

From the very best quality of charcoal iron and steel wire.

**PATENT FLAT AND ROUND HEMP ROPES.**

SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPULING, OIL SHEETS, BRATTLE CLOTHS, &c.

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**GARNOCK, BIBBY, AND CO.,**

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MANUFACTURERS OF FLAT AND ROUND HEMP AND IRON AND STEEL WIRE ROPES for MINING, RAILWAY, and SHIPPING PURPOSES.  
MANILLA ROPE OF SUPERIOR QUALITY, FIFTY PER CENT. STRONGER AND THIRTY PER CENT. CHEAPER than Russian hemp rope.  
WIRE ROPE OF FIRST QUALITY WIRE, and the HIGHEST STANDARD STRENGTH.

**COAL CUTTING MACHINERY.**

The WEST ARDSLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are now READY TO MAKE CONTRACTS for the CONSTRUCTION and USE of their MACHINES.

The results of two months' experience in the working of these machines, by the West Ardsley Company, have proved most satisfactory, their use being found CHEAPER the COST and IMPROVE the average SIZE of the COAL, to EIGHTEN the LABOUR, and also to MODIFY the SANITARY CONDITION of the MINE.

All communications to be made to Messrs. FIRTH, DONNISTHORPE, and BOWER, 10, 8, Britannia-street, Leeds.

**NOTICE.**—The WEST ARDSLEY COMPANY, having reason to believe that their patents are being infringed upon, hereby give notice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, or USE ANY MACHINERY in the construction of which any such INFRINGEMENT is MADE.

**NITRO-GLYCERINE, OR NOBEL'S PATENT BLASTING**

OIL.—The EXPLOSIVE FORCE of this BLASTING OIL is TEN TIMES that of GUNPOWDER, and the ECONOMY and SAVING in TIME, LABOUR, and COST in removing granite and hard rock, in sinking shafts, driving tunnels, and opening forward in close ends is immense.

It will not explode from a spark or fire, but from concussion alone, and is consequently much less dangerous than gunpowder or gun-cotton.

Being heavier than water it sinks to the bottom of a wet hole, no other tampering than water being required.  
The charge of this blasting oil, which is now being used with wonderful effect all the largest slate quarries in North Wales, will displace as much slate rock four or five charges of gunpowder; and its great force, acting on a large quantity of good slate rock, shakes and displaces it at the natural joints, or cracks, without damaging the slabs nearly so much as the more numerous shots from any other blasting material would do.  
This invaluable quarrying agent may now be obtained from Messrs. Farnham & Co., Carnarvon, sole consignees from the patentee.

**CREASE'S NEW AND IMPROVED PATENT BORING**

MACHINE.—In consequence of the various and IMPORTANT IMPROVEMENTS that an experience of several years has enabled the inventor to introduce into these machines, he can with the most perfect confidence recommend them for their increased DURABILITY, SIMPLICITY, ECONOMY, and SPEED to be attained by their adoption in DRIVING LEVELS or DRIFTS.

The inventor has made arrangements to supply them in any quantity, with warranty. Orders executed according to their date of priority.  
Address, EDWARD S. CREASE, Tavistock, Devon.

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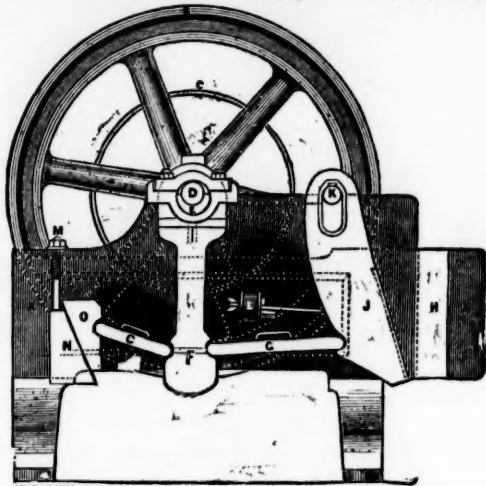
THE DAILY CHRONICLE AND NORTHERN COUNTRIES ADVERTISER.

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TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT GRINDERS, MACADAM ROAD MAKERS, &c., &c.  
**BLAKE'S PATENT STONE BREAKER,**  
OR ORE CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.  
It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:—



*The Parys Mines Company, Parys Mines, near Bangor, June 6.*—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the material to the required size, and its great economy in doing away with manual labour.

For the Parys Mining Company, JAMES WILLIAMS.

H. R. Marsden, Esq.

*Edon Emery Works, Manchester.*—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given very satisfaction. Some time after starting the machine a piece of the moveable jaw about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.

H. R. Marsden, Esq.

THOS. GOLDSWORTHY &amp; SONS.

*Alkali Works, near Wednesbury.*—I at first thought the outlay too much for simple an article, but now think it money well spent.

WILLIAM HUNT.

*Welsh Gold Mining Company, Dolgelly.*—The stone breaker does its work admirably, crushing the hardest stones and quartz.

WM. DANIEL.

Our 15 by 7 in. machine has broken 4 tons of hard whinstone in 20 minutes, for fine road metal, free from dust.

Messrs. ORD and MADDISON,

Stone and Lime Merchants, Darlington.

*Kirkless Hall, near Wigan.*—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton.

JOHN LANCASTER.

*Ovoca, Ireland.*—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour.

WM. G. ROBERTS.

*General Frémont's Mines, California.*—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate.

SILAS WILLIAMS.

For circulars and testimonials, apply to—

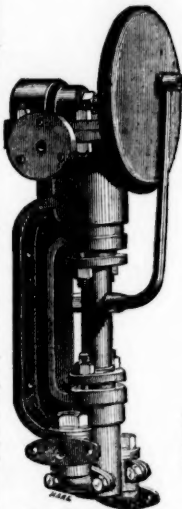
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MEADOW LANE, LEEDS,

ONLY MAKER IN THE UNITED KINGDOM.

GIFFARD'S PATENT INJECTOR COMPLETELY SUPERSEDED BY  
**THE NEW PATENT DONKEY STEAM PUMP,**

[SPECIFICATION.]



SIDE ELEVATION.

This Pump is constructed on an entirely novel and simple principle, there being only a crank-shaft and fly-wheel of small size, the slide-valve being worked inside the steam chest by means of a steel crank and friction roller, thus dispensing with eccentric, rod, and straps. All the working parts are made of steel, hardened and polished. The cylinder and pump are in one casting, and bored throughout the body of the pump as well as the stuffing-box. The pump-ram is of the best gun-metal, being cast in one piece with the piston and piston-rod, and fitted accurately to the bored body of the pump, thus ensuring a nearly perfect vacuum in pumping. The stuffing-box glands are also of gun-metal polished. The valves and boxes are of the best gun-metal, the valves being of the spherical description, the covers fitted with brass cages, and the joints faced metal to metal. The slide-valve is of hard bell-metal. The steam-chest, with cylinder end, is in one piece, and may be removed without disturbing either steam or exhaust pipes. The whole engine may be taken to pieces and put together under steam in fifteen minutes, without disturbing any pipes whatever.

Size.	Ram.	Stroke.	Approx. h.p.	Approx. gal.	Price.	Price of Giffard's Inject	
No. 4	in.	in.	boiler supplied.	thrown p. hour.		In brass. In iron.	
4	1 1/2	3	15	230	£10 10	£15	£10 10
5	1 3/4	3	22	350	12 12	19	13 10
6	1 3/4	4	30	500	14 14	23	16 10
7	2 1/4	4	40	700	17 0	27	19 10
8	2 1/2	5 1/2	55	900	19 10	32	22 10
9	2 3/4	5 1/2	75	1150	22 10	36	25 10
10	2 3/4	6 1/2	90	1420	25 10	40	28 10
11	2 3/4	6 1/2	110	1720	28 10	45	31 10
12	2 3/4	8	120	2000	31 10	50	34 10
N.B. — All engines similar to Giffard's Injectors.					All engines made in France.		

N.B.—Sizes and capacities similar to Giffard's Injector. All guaranteed to work efficiently.

Terms: Nett Cash on Delivery in London.

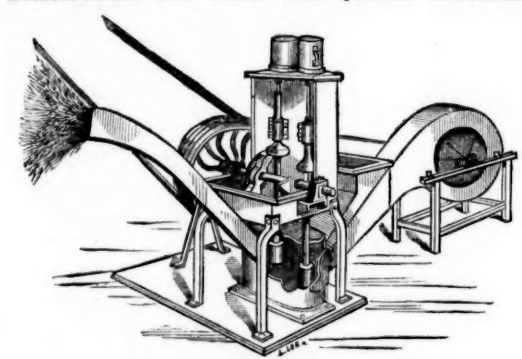
Giffard's injector will not force water over 120° Fahr., while these pumps possess the great advantage of being able to pump boiling water. Giffard's injector will not draw water over 6 ft. deep, while these pumps draw water 15 ft., and by using one size larger than required for forcing the quantity will draw 30 ft. deep. These pumps begin to work at 15 lbs. per square inch; to work at a lower pressure the next larger size must be used. Sizes up to No. 10 kept in stock. Larger sizes, and special pumps for throwing water into tanks, or as fire-engines, can be made in a few days on application to the undersigned.

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FRONT ELEVATION.

**CHILDS' PATENT**  
**ATMOSPHERIC ORE STAMP AND QUARTZ CRUSHER.**



THIS is an IMPROVED STAMP, and will give as many blows per minute as an ordinary 10-stamp mill, and of far greater force, giving an effective blow of from 150 to 200 tons per minute, and will crush any known ore to an impalpable powder, saving every particle of the product for future operations,—a result not before obtained by any stamping process. Greater economy is combined than by any other known method. The patentee has erected a machine near his office, where he invites (by appointment) experienced and practical miners, engineers, chemists, metallurgists, and all others interested, to inspect its results. Every facility will be given for experiments upon different ores, and all other substances to be crushed.

For particulars, address—**A. B. CHILDS,**  
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**IMPORTANT REDUCTION IN THE PRICES OF PORTABLE**  
**ENGINES FOR 1866.**

**CLAYTON, SHUTTLEWORTH, AND CO.,**

ENGINEERS,

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MACHINERY for PUMPING, HOISTING, GRINDING,  
SAWING, &c.

ENGINES for STEAM CULTIVATION, SELF MOVING ENGINES for COMMON ROADS, and AGRICULTURAL PURPOSES GENERALLY.

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Descriptive, illustrated, and priced catalogues free per post.

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THE BEST STEAM THRASHING MACHINERY MADE.

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THE PRIZE MEDALS at the ROYAL EXHIBITION of 1851, at the INTERNATIONAL EXHIBITION of 1862, in London, and at the IMPERIAL EXPOSITION held in Paris, in 1865.

**BICKFORD, SMITH, AND CO.,**  
TUCKINGMILL, CORNWALL, MANUFACTURERS OF PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—  
EVERY COIL OF FUSE MANUFACTURED BY THEM has TWO SEPARATE THREADS PASSING THROUGH THE COLUMN OF GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.

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CAST STEEL for PUNCHES, TAPS, and DIES,

TURNING TOOLS, CHISELS, &amp;c.

CAST STEEL PISTON RODS, CRANK PINS, CON

NECTING RODS, STRAIGHT and CRANK

AXLES, SHAFTS and

FORGINGS of EVERY DESCRIPTION.

DOUBLE SHEAR STEEL

BLISTER STEEL,

SPRING STEEL,

GERMAN STEEL,

Locomotive Engine, Railway Carriage and Wagon

Springs and Buffers.

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Where the largest stock of steel, files, tools, &amp;c., may be selected from.

Gun-Cotton—By Royal Letters Patent.



**PRENTICE'S BLASTING GUN-COTTON**  
PRODUCES NO SMOKE, and having been further REDUCED in PRICE is now by far the CHEAPEST as well as the SAFEST material which can be used in any description of mining or quarrying work.

Sample cases, together with every information, may be obtained from—

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**GUN-COTTON** has been constantly used with great success in the tunnel of the Aberdeen Water-Works, lately opened by Her Most Gracious Majesty the Queen.

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This patent pump is the MOST EFFICIENT in existence for LIFTING ANY QUANTITY of WATER from ANY DEPTH. One lifting from a depth of 170 ft. may be seen at work daily, on application to the

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## THE MINING SHARE LIST.

## BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
1500	Alderley Edge, c. Cheshire*	10 0 0	—	—	8 12 8	0 5 0	Jan. 1867
2000	Batallack, c. St. Just	91 5 0	—	—	488 15 0	0 5 0	May 1866
10000	Brookfield, c. St. Just	10 0 0	—	—	9 per cent.	—	Sept. 1866
4000	Brookwood, c. St. Just	1 11 0	—	—	0 5 0	0 2 6	Sept. 1866
1000	Broudford, c. Cardigan*	12 0 0	—	—	8 7 0	0 6 0	Aug. 1866
6400	Cashwell, c. Cumberland*	2 10 0	1 1 1/2	—	0 1 6	0 1 6	Aug. 1866
916	Cargill, c. Newlyn	15 5 7	—	—	13 15 0	1 0 0	Feb. 1866
887	Cwm Erddin, c. Cardiganshire*	7 10 0	—	—	21 18 0	1 0 0	Jan. 1866
128	Cwmystwith, c. Cardiganshire	60 0 0	—	—	372 10 0	5 0 0	Dec. 1866
280	Dewent Mines, c. Durham	300 0 0	—	—	167 0 0	5 0 0	Oct. 1866
1024	Devon Gt. Consols, c. Tavistock*	1 0 0	420	400 420	1048 0 0	6 0 0	Jan. 1867
358	Dolcoath, c. Camborne	128 17 6	—	—	821 10 0	3 0 0	Feb. 1867
6144	East Caradon, c. St. Cleer	2 14 6	6	5 5 1/2	14 7 6	0 0 0	Jan. 1867
300	East Darren, c. Cardiganshire	32 0 0	—	—	136 10 0	2 0 0	Nov. 1866
128	East Pool, c. Pool, Illogan	24 0 0	—	—	390 0 0	2 0 0	Jan. 1867
5300	East Rosewarne, c. f. Gwennap	2 15 0	—	—	0 10 0	0 1 6	Jan. 1866
1906	East Wheal Lovell, c. Wendron	3 9 0	10 1/2	9 9 1/2	2 7 6	0 7 6	May 1866
2800	Foxdale, c. Isle of Man*	25 0 0	—	—	69 10 0	0 10 0	Jan. 1866
5000	Frank Mills, c. Christow	3 18 6	—	—	3 5 6	0 5 0	Feb. 1866
15000	Great Laxey, c. Isle of Man*	4 0 0	16	15 1/2 16	5 15 0	0 10 0	Dec. 1866
5908	Great Wheal Vor, c. Helston*	40 0 0	18	10 1/2 17 1/2	10 17 6	0 7 6	Dec. 1866
1024	Herodfoot, c. near Liskeard*	8 10 0	—	—	40 10 0	1 0 0	Feb. 1867
6000	Hingston Down, c. f. Helston	5 10 0	—	—	0 10 0	0 5 0	April 1866
400	Lisburne, c. Cardiganshire, Wales	18 15 0	—	—	48 10 0	3 0 0	Jan. 1866
9000	Marke Valley, c. Cardigan	4 10 6	4 1/2	—	3 11 0	0 2 6	June 1866
3000	Minera Boundary, c. Wrexham*	1 0 0	—	—	0 13 0	0 3 0	Mar. 1866
1800	Minera Mining Co. f. Wrexham*	25 0 0	—	—	205 8 0	3 0 0	Nov. 1866
20000	Mining Co. of Ireland, c. f. L.	7 0 0	18 1/2	17 1/2 17 1/2	—	—	Jan. 1867
40000	Mynydd Iron Ore*	3 5 0	—	—	0 6 6	0 2 6	Mar. 1866
—	New Merrybent and Middleton*	3 10 0	—	—	5 per cent.	—	Nov. 1866
200	Parry Mines, c. Anglessey	50 0 0	—	—	157 10 0	5 0 0	Jan. 1866
1120	Provident, c. f. Llanelli	10 7 0	28	24 26	81 17 6	0 10 0	Nov. 1866
512	South Caradon, c. St. Cleer	1 5 0	320	—	644 10 0	5 0 0	Jan. 1867
6000	South Darren, c. f. L.	3 6 6	—	—	0 5 6	0 2 6	June 1866
6000	Tinctor, c. f. Pool, Illogan*	9 0 0	13 1/2	12 1/2	18 11 0	0 5 0	Jan. 1867
3000	W. Chiverton, c. f. Perranzabuloe*	10 0 0	62	61 63	17 7 6	2 0 0	Feb. 1867
400	West Wheal Seton, c. Camborne*	47 10 0	137 1/2	130 140	467 0 0	2 10 0	Feb. 1867
512	Wheal Bassett, c. Illogan*	3 2 6	66	64 66	622 0 0	1 0 0	Oct. 1866
1024	Wheal Friendship, c. Devon	20 0 0	—	—	300 10 0	0 10 0	Nov. 1866
4205	Wheal Kitty, c. St. Agnes	4 6 0	—	—	3 1 0	0 2 6	Feb. 1867
1024	Wheal Mary Ann, c. Menheniot*	8 0 0	13	11 13	60 7 6	0 10 0	Dec. 1866
2000	Wheal Rose, c. Scorrier*	—	11	—	0 7 6	0 10 0	Feb. 1866
396	Wheal Seton, c. f. Camborne	58 10 0	127 1/2	105 110	239 5 0	3 10 0	Feb. 1867
1040	Wheal Trevelyan, c. f. Liskeard*	5 17 0	12	9 11	54 5 6	0 5 0	Dec. 1866
7000	Wicklow, c. f. Wicklow	2 10 0	25 1/2	—	45 15 0	0 18 0	Oct. 1866

## FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
5000	Cape Copper Mining*	7 0 0	9	8 1/2 8 1/2	2 12 6	0 10 0	April 1866
28000	Fortuna, c. Spain*	2 0 0	2 1/2	1 1/2 2 1/2	1 5 4	0 2 0	Oct. 1866
70000	English and Australian, c. f.	2 10 0	1	—	1 13 0	0 1 0	Feb. 1867
20000	Gen. Mining Assoc., Nova Scotia*	20 0 0	21	19 21	22 0 0	1 0 0	June 1866
10000	Gonnesa, c. f. [5000 £3 pd.]	—	—	—	7 1/2 per cent.	—	per annum.
15000	Linares, c. Spain*	3 0 0	—	—	11 6 4	0 5 0	Jan. 1866
50000	Panuco, c. f. [5000 £3 pd.]	3 0 0	3	2 2 1/2	10 per cent.	—	Yearly.
10000	Pontefract, c. f. France*	20 0 0	8	7 8	4 3 2	1 3 6	Dec. 1866
10000	Port Phillip, c. f. [5000 £3 pd.]	1 0 0	—	—	0 16 0	1 0 0	Jan. 1867
12000	Scottish Australian Mining Co. f.	1 0 0	1 1/2	—	7 1/2 per cent.	—	Dec. 1866
11000	St. John del Rey, Brazil*	15 0 0	54	52 53	72 10 0	4 0 0	Dec. 1866
5000	Victoria (London) [25000 £1 pd.]	—	—	—	0 9 0	0 1 0	Jan. 1867
40000	West Canada Mining Company*	1 0 0	—	—	0 19 6	0 2 6	May 1865

## NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
100000	Alamillo, c. Spain*	—	—	—	15 1/2	3 1/2	—
100000	Anglo-Brazilian, c. f.	—	—	—	15 1/2	3 1/2	—
10000	Alten and Quenangen United, c. f.	—	—	—	4 10 0	—	—
20000	Anstralian, c. f. South Australia*	—	—	—	7 7 6	—	—
40000	Britannia Silver-Lead Mines, France* [15750 £8 pd.]	—	—	—	—	—	—
2464	Burra Burra, c. f. South Australia*	—	—	—	5 0 0	31 1/2	—
25000	Capula, c. Mexico*	—	—	—	1 12 0	—	—
30000	Chontales, c. f. Nicaragua*	—	—	—	3 0 0	2 1/2	—
10000	Cobre Copper Company, c. f. Chile*	—	—	—	40 10 0	—	—
10000	Copiope Mining Company, Chile*	—	—	—	1 11 6	—	—
10000	Copiope Smelting, Chile*	—	—	—	10 0 0	—	—
300	Copper Miners' Co. of South Australia* [150 £100 pd.]	—	—	—	150 £70 pd.]	—	—
100000	Don Pedro No. del Rey, Brazil*	—	—	—	0 14 0	21 1/2	—
25000	East of the Rey, c. f. Brazil*	—	—	—	2 15 0	—	—
21500	East Indian Coal, Calcutta	—	—	—	10 0 0	—	—
15000	El Chico Silver Mining and Reduction Company*	—	—	—	5 0 0	—	—
5000	English and Canadian Mining Company*	—	—	—	5 0 0	—	—
50000	Frontino and Bolivia, c. f. New Granada*	—	—	—	1 12 6	—	—
80000	Great Northern, c. f. South Australia*	—	—	—	1 11 6	—	—
10000	Great Barrier Land, Mining, c. f. New Zealand	—	—	—	5 0 0	—	—
68000	Kapunda Mining Co. Australia*	—	—	—	1 0 0	—	—
7927	Lusitania (Portugal)*	—	—	—	3 0 0	—	—
83000	Mariquita, c. f. [5000 £5 pd., 6500 £4 pd.]	—	—	—	0 12 6	—	—
12500	Nerbudda Coal and Iron* [5000 £5 pd., 6500 £4 pd.]	—	—	—	—	—	—
5000	Nova Scotia Land and Gold*	—	—	—	1 15 0	—	—
15000	Orea, c. f. New Zealand* [5000 £5 pd.]	—	—	—	10 0 0	—	—
6000	Peel River Land and Mineral*	—	—	—	100 0 0	—	—
30000	Pestarena, c. f. [5000 £5 pd., 478 £2 10 pd.]	—	—	—	2 0 0	—	—
51000	New Quebrada, c. f. Venezuela*	—	—	—	5 0 0	—	—
17818	Rhenish Consolidated, c. f. [5000 £5 pd., 478 £2 10 pd.]	—	—	—	—	—	—
50000	Rosa Grande, c. f. Brazil*	—	—	—	0 7 6	—	—
15000	San Pedro del Monte, c. Mexico*	—	—	—	4 0 0	—	—
10000	San Roque, c. f. Spain	—	—	—	5 0 0	—	—
10000	Schlossberg Colliery	—	—	—	10 0 0	—	—
4314	United Mexican, c. f. Mexico*	—	—	—	28 5 0	—	—
10000	Vancouver, c. f. [5000 £5 pd.]	—	—	—	0 17 6	—	—
30000	Val Antisoria, c. f. [5000 £5 pd.]	—	—	—	6 10 0	—	—
5000	Valdemar Mining Company*	—	—	—	20 0 0	—	—
50000	Vallancasca, c. f. Italy*	—	—	—	0 15 0	—	—
45000	Victor Emanuel, c. f. Italy*	—	—	—	1 0 0	—	—
20000	Washoe, c. f. [5000 £5 pd.]	—	—	—	5 0 0	—	—
80000	Working, c. f. South Australia*	—	—	—	1 0 0	—	—
75000	York Peninsula, South Australia	—	—	—	3 0 0	—	—
45000	Yudnamutanz, c. f. S. A.*	—	—	—	3 0 0	—	—

## BANKS AND FINANCIAL COMPANIES.

Shares.	Banks.	Paid.	Last Pr.	Bus. done.
40000	Alliance*	25 0 0	19	17 1/2
40000	Australian Mort. Land and Finance†	5 0 0	5	5 1/2
20000	Australasia†	40 0 0	63	66 68
10000	Bank of Egypt†	25 0 0	31	31 33
50000	Bank of New Zealand†	10 0 0	18 1/2	17 19
25000	Bank of Otago*	10 0 0	6	6 7
20000	Bank of Victoria, Australia†	25 0 0	39	37 39
20000	British North American†	50 0 0	—	48 50
8915	Canada Company†	32 10 0	60	68 72
50000	Canadian Loan and Investment††	2 10 0	18 1/2	—
40000	Chartered Bank India, Australia, and China†	20 0 0	18 1/2	17 18
20000	Chartered Merc. of India, London and China†	25 0 0	35	33 1/2 34 1/2
50000	City†	10 0 0	16	13 1/2 14 1/2
20000	Colonial†	25 0 0	36	39 41
40000	Company of African Merchants†	3 0 0	3	3 3 1/2
150000	Consolidated Bank††	4 0 0	5	4 1/2 5 1/2
50000	ditto New††	3 0 0	—	3 3 1/2
200000	Credit Foncier and Mobilier of England††	8 0 0	3	3 1/2 3 3/4
20000	East London†	5 0 0	4	2 1/2 3 1/2
30000	English, Scottish, & Aust. Chart.†	20 0 0	17 1/2	17 18
20000	English and Swedish†	25 0 0	14 1/2	14 16
250000	General Credit and Finance of London†	6 0 0	4 1/2	4 1/2
20000	Imperial Bank†	20 0 0	24	22 24
200000	Imperial Ottoman†	10 0 0	—	8 1/2 9 1/2
150000	International Financial Society††	5 0 0	3 1/2	2 1/2 2 3/4
50000	International Land Credit††	6 0 0	2 1/2	3 4
50000	London Chartered Bank of Australia†	20 0 0	22 1/2	22 23
37500	London and County†	20 0 0	65	64 65
40000	London Financial Association†	25 0 0	9 1/2	6 1/2 7 1/2
72000	London Joint-Stock†	25 0 0	42	42 43 1/2
5000	London and River Plate††	40 0 0	—	42 47
20000	ditto ditto New, issued at 1 1/2 prem.††	10 0 0	—	11 12
20000	ditto ditto New††	10 0 0	—	11 12
10000	London and South-Western†	20 0 0	18	18 19
5000	London and Venezuela†	12 0 0	—	—
20000	London and Westminster†	20 0 0	94	94 95
50000	Mercantile and Exchange†	12 0 0	—	3 4
10000	Merchant††	25 0 0	—	15 16 1/2
5000	ditto New††	20 0 0	—	9 11
17156	Metropolitan and Provincial†	20 0 0	10 1/2	8 9
4000	Midland†	20 0 0	—	18 18 1/2
20000	National of Australia†	4 0 0	6	5 6
20000	National of Liverpool†	15 0 0	—	15 16
10000	National Provincial of England†	42 0 0	—	—
50000	ditto ditto 2d and 3d issue†	12 0 0	—	—
40000	National†	30 0 0	70	63 65
50000	New South Wales†	30 0 0	46	44 46
60000	Oriental Bank Corporation†	25 0 0	—	42 45
27210	Provincial Banking Corporation††	10 0 0	—	3 4
10000	Provincial of Ireland†	25 0 0	—	83 85
10000	ditto ditto New†	10 0 0	—	—
40000	Union of Australia†	60 0 0	—	47 49
10000	Union of Ireland†	22 0 0	—	12 12
80000	Union of London†	15 0 0	45	44 1/2 45 1/2